



University of Colorado **Denver**

2013-14 Catalog

Prepared by the
Office of the Registrar

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Catalog Home



CU Denver

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Information/ Admissions

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Denver, Colorado

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CU Denver Office of
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Campus Box 167,
P.O. Box 173364
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The 2013-2014 CU Denver catalog is considered the source for academic and programmatic requirements for students entering programs during the summer 2013, fall 2013, spring 2014, and summer 2014 semesters. Although this catalog was prepared using the best information

available at the time, all information is subject to change without notice or obligation. The university claims no responsibility for errors that may have occurred during the production of this catalog. For current calendars, tuition rates, requirements, deadlines, etc., students should refer to the bursar's office and registrar's office websites, ucdenver.edu/bursar and ucdenver.edu/registrar, for the semester in which they intend to enroll.

The courses listed in this catalog are intended as a general indication of the University of Colorado Denver curricula on the Denver campus. Courses and programs are subject to modification at any time. Not all courses are offered every semester, and faculty teaching particular courses or programs may vary from time to time. The content of a course or program may be altered to meet particular class needs.

Previous editions of this catalog are available [online](#).

The University of Colorado Denver is an affirmative action/equal opportunity employer and educator committed to excellence through inclusiveness.

Welcome



Welcome to a university for the 21st century.

The University of Colorado Denver plays a critical role in the development and well-being of the state and its citizens, with a dedication to advancing and inspiring learning and teaching; community and culture; discovery and innovation; and health and wellness; we are the region's premier urban university.

By combining the excellence of our academic programs at CU Denver with the extensive research and teaching of the CU Anschutz Medical Campus in Aurora, we provide a unique option in the University of Colorado system. Here you will benefit from:

Academic choices—more than 130 degree programs in 13 schools and colleges

A spirit of collaboration—the synergy of combining disciplines to create courses of study like public health administration, bioengineering or health and behavioral sciences

Outstanding location—access to a vibrant, safe urban lifestyle, alongside opportunities to gain experience in projects and internships at businesses and corporations throughout the Denver metropolitan area

We are a leading economic driver and job creator for the state of Colorado—a valued partner in our community and a place of academic excellence for you, the students who have turned to us to pursue your educational dreams.

Here you'll have access to the opportunities you need to achieve your educational goals. You will meet faculty dedicated to excellence in the classroom and in research laboratories and fellow students who are diverse, goal-oriented and energetic. Whether you engage in undergraduate or graduate studies, the University of Colorado Denver degree has global respect and you can rest assured that you will have been well-prepared for the next stage of your work or academic life.

It's a privilege to have you join us.

Donald M. Elliman, Jr.

Chancellor
University of Colorado Denver

CU Denver Executive Team

Donald M. Elliman, Jr.

Chancellor

BA, Middlebury College

Lilly Marks

Vice President for Health Affairs and

Executive Vice Chancellor for Anschutz Medical Campus

BS, University of Colorado Boulder

Leanna Clark

Vice Chancellor of Marketing and Community Engagement

BS, University of Colorado Boulder

Richard Krugman

Vice Chancellor for Health Affairs and Dean of School of Medicine

AB, Princeton University

MD, New York University

Roderick Nairn

Vice Chancellor for Academic and Student Affairs and Provost

BSc, University of Strathclyde (Scotland)

PhD, University of London (England)

Jeff Parker

Vice Chancellor for Administration and Finance

BS, Western State College

Richard Traystman

Vice Chancellor for Research

MS, Long Island University

PhD, The Johns Hopkins University

The University

The University of Colorado Denver was formed July 1, 2004 by the consolidation of two established universities in the University of Colorado System. The university joins the strengths of a comprehensive campus in downtown Denver with the research and advanced health care programs on the Anschutz Medical Campus in Aurora. Educating more than 14,000 students on our Denver Campus plus more than 3,000 students in health sciences programs from 50 states and 86 countries, the consolidated university is one of the nation's top public urban research universities.

The University of Colorado Denver offers a unique experience for students. Its Denver Campus is in the heart of the city—the business, cultural and political capital of the West. Its Anschutz Medical Campus in nearby Aurora is the nation’s newest health sciences campus, where discoveries in the lab and in the clinic transform medical treatments into cures.

More and more undergraduates are discovering the value of classes in the city taught by professors who are connected with top companies—often advising the same CEOs who are hiring our graduates. New housing adjacent to campus, easy commuting by light rail and discounts to cultural and sporting events give students many options for immersion in vibrant city life. In addition, affiliations with research labs and hospitals at Anschutz Medical Campus make CU Denver an excellent place to start a health care career.

The University of Colorado Denver awards more graduate degrees than any other university in Colorado. It is known for its programs in urban sustainability, criminal justice, business, education, applied science and engineering, film and music industry as well as a full array of health professional programs at the Anschutz Medical Campus. The graduate student population is a diverse mix of ages and ethnicities, creating a rich environment for learning and networking.

Other reasons why students choose the University of Colorado Denver:

- **Small class sizes:** average undergraduate student-to-teacher ratio is 15:1.
- **The Denver vibe:** Colorado has always attracted the adventurous. It is one of the healthiest in the country, with an extensive network of bike trails and quick access to mountain sports. The Denver Campus is adjacent to a thriving arts district.
- **Collaborative culture:** Cross-disciplinary learning and research is a core value—programs blend technology with health care, business with public policy, behavioral health with architecture and public health with health providers.
- **Choices:** With 13 schools and colleges offering more than 130 degree programs, the University of Colorado Denver is a major university for the coming century.

Denver Campus

With a solid academic reputation and award-winning faculty, the Denver Campus offers bachelor's, master's and doctoral programs through seven distinct academic units:

[College of Architecture and Planning](#)

[College of Arts & Media](#)

[Business School](#)

[School of Education & Human Development](#)

[College of Engineering and Applied Science](#)

[College of Liberal Arts and Sciences](#)

[School of Public Affairs](#)

Anschutz Medical Campus—Aurora

In achieving its mission of education, research, patient care and community service, the Anschutz Medical Campus offers degree programs through six schools and colleges:

School of Dental Medicine

Graduate School

School of Medicine

College of Nursing

School of Pharmacy

Colorado School of Public Health

An overview of programs offered on the Anschutz Medical Campus is located in the Health Professions chapter of this catalog. Contact the individual school or program coordinator for details.

Mission, Vision and Values

In 2007-2008, the University of Colorado Denver completed a strategic planning process which resulted in the following guiding statements:

Mission

The University of Colorado Denver is a diverse teaching and learning community that creates, discovers and applies knowledge to improve the health and well-being of Colorado and the world.

Vision

By 2020, The University of Colorado Denver will be a leading public university with a global reputation for excellence in learning, research and creativity, community engagement and clinical care.

Values

To be a university greater than the sum of its parts, the University of Colorado Denver embraces excellence in:

Learning and Scholarship

The University of Colorado Denver respects academic freedom and the rigorous quest for knowledge and understanding. We share knowledge and foster student success through a continuous process of inquiry, critical thinking, reflection, collaboration and application.

Discovery and Innovation

The University of Colorado Denver fosters an energetic, collaborative and creative environment where we develop and employ new ideas and technologies. Our entrepreneurial culture enables us to expand the frontiers of knowledge and human experience.

Health and Care of Mind, Body and Community

The University of Colorado Denver enriches the well-being and sustainability of communities and our cultural, living and natural environments. We promote healthy lifestyles, prevent, diagnose and treat disease and deliver high-quality and compassionate health care.

Diversity, Respect and Inclusiveness

CU Denver seeks the richness that an increasing diversity of our communities brings to our learning, research and service endeavors. Our common humanity leads us to create an inclusive and respectful ethos characterized by caring, empathy, compassion, nurturing, collegiality and mentoring.

Citizenship and Leadership

The University of Colorado Denver serves Colorado and the world as a recognized source of talent, knowledge, informed judgment, exemplary health care and professional practice. We are responsible stewards of the resources entrusted to us and utilize them with integrity for the betterment of our community.

Details about the mission, vision, values and strategic plan for the university are available online.

University of Colorado System

The University of Colorado is a system of three universities with campuses located in Boulder, Colorado Springs and Denver/Aurora. With combined total enrollments of more than 60,000 students, the University of Colorado system consistently ranks in the top 15 among public universities and colleges in overall research expenditures and seventh among public universities in federally funded research. Awards for research within the system total more than \$770 million, with funding provided by federal agencies, appropriations from the state of Colorado and private foundations and donors.

Board of Regents

Steve Bosley

At Large

term expires 2017

Michael Carrigan, Chair

District 1

term expires 2017

Glen Gallegos

District 3

Term expires 2019

Dr. Jim Geddes

District 6

term expires 2015

Dr. Irene Griego

District 7

term expires 2015

Kyle Hybl

District 5

term expires 2019

Stephen Ludwig

At Large

term expires 2019

Joe Neguse

District 2

term expires 2015

Sue Sharkey, Vice Chair

District 4

term expires 2017

History and Evolution of the University of Colorado Denver

- 1876** Legislature founds the University of Colorado
- 1883** Medical department opens with two students
- 1898** CU establishes School of Nursing
- 1912** CU organizes the Department of Correspondence and Extension in Denver
- 1913** CU establishes School of Pharmacy
- 1925** CU dedicates 9th and Colorado Blvd. medical center
- 1956** Regents purchase Tramway Building for Extension Division
- 1965** Regents change extension name to University of Colorado-Denver Center, School of Nursing creates first Nurse Practitioner program in the world
- 1972** CU-Denver Center changes name to University of Colorado at Denver
- 1973** School of Dentistry enrolls its first class; state begins building Auraria Campus
- 1974** CU reorganizes as a four-campus system
- 1988** CU-Denver moves into the 257,000 square-foot North Classroom Building on the Auraria Campus
- 1992** School of Pharmacy moves from Boulder to Health Sciences Center
- 1995** Government conveys 217 acres at Fitzsimons to CU for modern health sciences facility
- 2000** First new and remodeled facilities open at Fitzsimons
- 2004** Regents consolidate CU Denver and Health Sciences Center to form the University of Colorado at Denver and Health Sciences Center
- 2006** Fitzsimons campus renamed Anschutz Medical Campus
- 2007** Regents approve shortened version of the name: University of Colorado Denver
- 2008** Medical, dental, pharmacy and nursing students start classes, Colorado School of Public Health enrolls first students on the Anschutz Medical Campus, School of Nursing renamed College of Nursing

Accreditation

The University of Colorado Denver is institutionally accredited by the Higher Learning Commission of North Central Association of Colleges and Schools.

The commission can be contacted at:

30 N. LaSalle Street, Suite 2400
Chicago, IL 60602-2504
Telephone: 1-800-621-7440
Website: www.ncacihe.org/

Many professional organizations have also granted accreditation to programs, colleges and schools at the Denver Campus, including:

- Accreditation Board for Engineering and Technology
- Association for the Advancement of Collegiate Schools of Business—International
- American Chemical Society
- Colorado State Board of Education
- Commission on Accreditation of Healthcare Management Education
- Council for Accreditation of Counseling and Related Educational Programs
- Landscape Architecture Accreditation Board
- National Architectural Accrediting Board
- National Association of Schools of Music
- National Association of School Psychologists
- National Association of Schools of Public Affairs and Administration
- National Council for the Accreditation of Teacher Education
- Planning Accreditation Board

Academic Programs

CU Denver is devoted to the needs of the residents of the city and the region. A solid foundation of academic and general education is assured through a comprehensive core curriculum. Students may pursue graduate education through all of the campus' colleges and schools. Pre-professional training in the fields of education, law, journalism and health careers is also available. Complete listings of areas of study available on the Denver Campus are available in the [Programs](#) section of the catalog.

The colleges and schools sections of this catalog provide information on bachelor's, master's and doctoral degree programs, policies on requirements for graduation, course requirements, course-load policies, course descriptions and similar information.

Continuing and Professional Education

The Division of Continuing and Professional Education offers complete degree programs, certificate/certification courses, professional development programs, precollegiate outreach programs and personal enrichment courses across the state of Colorado. Courses are offered in a variety of formats, including traditional on-campus, off-campus, online, hybrid, weekend, evening, short and condensed courses and many others.

Registration and tuition varies by school or college. Contact the specific school or college to learn about current program and course offerings, or contact the Academic Technology and Extended Learning office at 303-556-2040 or visit our website at www.ucdenver.edu/academics/continuing-education/Pages/index.aspx.

About Our Students

The diversity of our student body is a source of deep pride. Ethnic minority students make up 24 percent of the student population. Classes include traditional students who have elected to pursue college degrees immediately after high school, transfer students, students who have delayed college entry and professionals who seek to strengthen their base of skills or broaden their appreciation of the world.

With students' ages ranging between 16 and 74, the average undergraduate student age at CU Denver is 24, while our graduate students average 32. They represent a distinctive mix of ages and backgrounds. All take advantage of the convenience of course offerings at times that meet their schedules, enjoying an enviable student-to-faculty ratio of 15:1.

Student Bill of Rights

The University of Colorado Denver subscribes to the Student Bill of Rights as defined in HB 01-1263. Students enrolled in public institutions of higher education shall have the following rights:

- (a) Students should be able to complete their associate of arts and associate of science degree programs in no more than sixty credit hours or their baccalaureate programs in no more than one hundred twenty credit hours unless there are additional degree requirements recognized by the commission;
- (b) A student can sign a two-year or four-year graduation agreement that formalizes a plan for that student to obtain a degree in two or four years, unless there are additional degree requirements recognized by the commission;
- (c) Students have a right to clear and concise information concerning which courses must be completed successfully to complete their degrees;
- (d) Students have a right to know which courses are transferable among the state public two-year and four-year institutions of higher education;
- (e) Students, upon completion of core general education courses, regardless of the delivery method, should have those courses satisfy the core course requirements of all Colorado public institutions of higher education;
- (f) Students have a right to know if courses from one or more public higher education institutions satisfy the students' degree requirements;
- (g) A student's credit for the completion of the core requirements and core courses shall not expire for ten years from the date of initial enrollment and shall be transferrable.

Related Organizations

Alumni Association

Mailing Address: Campus Box 189, P.O. Box 173364, Denver, CO 80217

Telephone: 303-315-2333

Fax: 303-315-2332

E-mail: ucdalumni@ucdenver.edu

Website: www.ucdenver.edu/downtownalumni

The University of Colorado Denver Alumni Association provides programs and services of mutual benefit to graduates and the university. Founded in 1976, the Denver Campus association is governed by a board of alumni representing all schools and colleges. Students automatically become Alumni Association members upon graduation and receive the *CU on the Horizon* newsletter, published twice a year. Alumni are invited to volunteer on committees, which include recognizing 4.0 students through the Academic Athlete program, providing financial assistance to students through a scholarship fund and bestowing Alumni Association awards to worthy graduates and community leaders. The association also invites alumni to attend periodic seminars and events.

University of Colorado Foundation

Mailing Address: 1380 Lawrence Street, Suite 1325, Denver, CO 80204

Telephone: 303-315-3601

Fax: 303-315-2063

Website: www.cufund.org

Established in 1967, the University of Colorado Foundation is a privately governed nonprofit corporation whose mission is to raise, manage and invest private support for the benefit of the University of Colorado. The Denver office of the CU Foundation was established to advance the campus goal to become one of the nation's premier urban research institutions.

The CU Foundation raises and manages private funds that endow scholarships and professorships, further research, enrich academic programs, upgrade and construct facilities and support projects that benefit students, faculty and the community.

The university's academic leadership establishes priorities for private support, and gifts are directed to the specific schools, program or purpose that the donor designates. Professional fundraisers identify and/or generate interest in the university, assist donors in gift planning and solicit gifts in collaboration with academic partners and leaders.

University Quick Facts

Locations	Denver Campus Attributes	Anschutz Medical Campus Attributes
Denver Campus (Auraria)	Enrollment 14,325*	Enrollment 3,708*
Anschutz Medical Campus (Aurora)	9,771 Undergraduate* (49% male, 51% female)	488 Undergraduate* (14% male, 86% female)
Total Enrollment 18,033 students enrolled in fall 2012*	4,554 Graduate* (44% male, 56% female)	1,420 Graduate* (25% male, 75% female)
57% undergraduate	Student-Faculty Ratio 19:1‡	1,800 First Professional* (44% male, 56% female)
33% graduate	Incoming	Diverse Population 22% ethnic minority
10% first professional	Freshmen: 995	Average Age
70% full time	Transfers: 1,346	Undergraduate: 30
15% out-of-state residents	Graduate Students: 872	Graduate: 31
6% international students	Diverse Population 28% ethnic minority	First Professional: 27
Degrees Bachelor's, master's, doctoral, first-professional	Undergraduate: 34% Graduate: 14%	Bragging Rights <i>U.S. News & World Report, America's Best Graduate Schools, 2013</i> (If otherwise noted, it is the most recent year ranked)
Programs 140 degree programs	Average age: 27 Undergraduate: 24 Graduate: 32	Health Disciplines Nursing, MS —15 Nurse midwifery - 13 Nurse practitioner: family —16 pediatrics —5 Pharmacy, PharmD (2008)—23 Physician Assistant, MS, PhD — 11
Schools and Colleges	Student Body From 49 states and 67 countries*	Schools of Medicine Primary care—5 Research—35 Specialties: Family medicine—3 Pediatrics—5 Rural Medicine— 7
Denver Campus College of Architecture and Planning	Bragging Rights <i>U.S. News & World Report America's Best Graduate Schools, 2013</i>	
College of Arts & Media Business School	School of Public Affairs, Top Schools #29	
School of Education & Human Development	Environmental Policy & Management #10	
College of Engineering and Applied Science	NonProfit Management #14 Public Administration #24	
College of Liberal Arts and Sciences		

School of Public Affairs

**Anschutz Medical
Campus**

School of Dental Medicine

School of Medicine

College of Nursing

School of Pharmacy

Colorado School of Public
Health

Graduate School

The Princeton Review, 2008

America's Best Value Colleges

Best Western Colleges, Best
in the West

Additional bragging rights for
schools and colleges on this campus
are available in their sections of this
catalog.

The Sciences

Biological sciences: Graduate
School, Anschutz Campus —68

Additional bragging rights for schools and
colleges on this campus are available in
the [Health Professions section](#).

Research Funding

More than \$434 million
in sponsored research

Alumni

114,857

(68% live in Colorado)*

*Fall 2012 end-of-term

‡2011-2012 Fiscal Year Data

Information for Undergraduate Students

At CU Denver, six undergraduate schools and colleges (College of Architecture and Planning, College of Arts & Media, Business School, College of Engineering and Applied Science, College of Liberal Arts and Sciences and School of Public Affairs) provide a diverse array of baccalaureate majors, minors, certificates and teacher licensure options to meet the ever-challenging demands of a global society. Your undergraduate education consists of a general education core curriculum and a major and elective courses for most areas of study. The campuswide core curriculum develops proficiency in writing and mathematics, cultivates a breadth of knowledge, promotes critical thinking, allows you the flexibility to meet your career goals and helps you develop sensitivity to cultural diversity and international perspectives.

A list of all our undergraduate programs, including minors and online programs, is available in the academics section of the CU Denver website:

<http://www.ucdenver.edu/academics/degrees/Pages/UndergraduateDegrees.aspx>

Undergraduate Admissions

Assistant Vice Chancellor for Enrollment Management: Barbara Edwards

Office: 1250 West 14th Street—Annex

Telephone: 303-556-2704

Fax: 303-556-4838

E-mail: admissions@ucdenver.edu

Website: www.ucdenver.edu/admissions

CU Denver seeks to identify applicants who are likely to be successful in a rigorous academic program of study. Admission decisions are based on many factors, the most important being:

- level of previous academic performance
- evidence of academic ability and accomplishment as indicated by scores on national aptitude tests
- evidence of maturity, motivation and potential for academic success

CU Denver may deny admission to new applicants or readmission to former students whose total credentials indicate an inability to assume obligations of performance and behavior deemed essential by the university.

After completing the application process, official notification of one's admission status as an undergraduate, graduate or nondegree student is provided by the Office of Admissions. Letters from various schools and colleges indicating acceptance into a particular program are pending, subject to official notification of admission to the institution by the admissions office.

Students who are admitted pending receipt of the application fee, additional documents or with unofficial documents will be permitted one term to submit the fee and/or documents. If temporarily waived fees and/or official documents are not received by the end of the initial term of attendance, registration for subsequent terms will be denied. If at any time additional credentials are received that affect the student's qualifications, the university reserves the right to change the admission decision.

Applicants who have not decided upon a major field of study will be considered for admission to the College of Liberal Arts and Sciences as undeclared majors. Students admitted as undeclared majors should declare a major as quickly as possible and no later than the end of their sophomore year.

All questions about admission to CU Denver and requests for application forms should be directed to 303-556-2704 or admissions@ucdenver.edu. Send credentials to:

Office of Admissions
University of Colorado Denver
Campus Box 167, P.O. Box 173364
Denver, CO 80217-3364

Application Deadlines

The university may change document/credential deadlines in accordance with enrollment demands. For the best scholarship and registration time considerations, applicants should apply and be admitted as early as possible. Admission to the university does not assure availability of specific courses. For an applicant to be considered for a specific term, all documents required for

admission must be received in the Office of Admissions by the deadline for that term. Applicants who are unable to meet the deadline may elect to be considered for a later term. Transfer students are reminded that they should allow sufficient time to have transcripts sent from institutions they have previously attended.

Advanced planning and early application are necessary for the timely admission of international students. International students are advised that it takes additional time for credentials to reach the Office of International Affairs from international locations.

See Information for International Students for more information:

<http://catalog.ucdenver.edu/content.php?catoid=10&navoid=1338>

Application Deadline for Priority Consideration (excluding BA/BS-MD and music applicants)

Fall: July 22

Spring: December 1

Summer: May 3

Early application is strongly encouraged. Admission to the university does not assure specific course availability.

First-time freshmen as well as transfer applicants with fewer than 30 credit hours who graduated from high school in spring of 2008 or later must meet the state of Colorado Higher Education Admission Requirements (HEAR) for high school units of study. College courses taken before or after graduation from high school can be considered toward fulfillment of HEAR unit requirements for admission consideration.

For students who graduated in 2008 or 2009, the following minimum high school courses (units) are required:

English	4 years (units)
Mathematics	3 years (units)
Natural Science	3 years (units), 2 of which must be lab-based
Social Studies	3 years (units), 1 of which must be United States or world history
Academic Electives	2 years (units)

For students who graduated in 2010 or later, the following minimum high school courses (units) are required:

English	4 years (units)
Mathematics	4 years (units)
Natural Science	3 years (units), 2 of which must be lab-based
Social Studies	3 years (units), 1 of which must be United States or world history
Foreign Language	1 year (unit), must be in a single language

Academic Electives 2 years (units)

Students with HEAR deficiencies may be considered for admission on an individual basis based on rigor of units completed as well as other admission criteria (e.g., test scores, rank in high school class, and GPA).

Minimum Academic Preparation Standards (MAPS)

First-time freshman and transfer students entering the University of Colorado Denver are required to meet the following minimum academic preparation standards (MAPS) for high school units of study, either prior to initial enrollment or before graduation from the University of Colorado Denver. College courses taken before or after graduation from high school can be considered toward MAPS fulfillment. Note: Students who graduated from high school between 1988 and 2009 may have reduced unit requirements in some areas. Students who graduated from high school before 1988 are exempt from MAPS.

COLLEGE OF ARCHITECTURE AND PLANNING	<i>Years</i>
English (emphasis on composition)	4
Mathematics (including two years of algebra and one year of geometry)	4
Natural science (including physics and/or biology and at least one lab course)	3
Social science (including one year of U.S. or world history)	3
Foreign language (all units must be in a single language)	2
Academic elective	1
Total	17

COLLEGE OF ARTS & MEDIA	<i>Years</i>
English (emphasis on composition--also recommend literature and grammar and strongly recommend one year of speech/debate)	4
Mathematics (three years at the college preparatory level; no more than one year of business or consumer mathematics)	4
Natural science (including one year of laboratory science)	3
Social science (including one year of U.S. or world history)	2
Foreign language (all units must be in a single language)	2
Academic elective or arts course	1
Total	16

BUSINESS SCHOOL

English (emphasis on composition--one year of speech/debate and two years of composition are strongly recommended)	4
Mathematics (including two years of algebra and one year of geometry)	4
Natural science (including two years of laboratory science)	3
Social science (including one year of U.S. or world history)	2
Foreign language (all units must be in a single language)	2
Academic elective (additional course in English, foreign language, mathematics, natural or social science)	1
Total	16

COLLEGE OF ENGINEERING AND APPLIED SCIENCE

English (emphasis on composition--also recommend literature and grammar and strongly recommend one year of speech/debate)	4
Mathematics (including two years of algebra, one year of geometry and one year of trigonometry and analytical geometry)	4
Natural sciences (including one year of physics, one year of chemistry and two years of laboratory science)	3
Foreign language (all units must be in a single language)	2
Social science (including one year of U.S. or world history)	2
Academic elective	1
Total	16

COLLEGE OF LIBERAL ARTS AND SCIENCES

English (emphasis on composition--also recommend literature and grammar and strongly recommend one year of speech/debate)	4
Mathematics (three years at the college preparatory level; no more than one year of business or consumer mathematics)	4
Natural science (including one year of laboratory science)	3
Social science (including one year of U.S. or world history)	2
Foreign language (all units must be in a single language)	2
Academic elective	1
Total	16

SCHOOL OF PUBLIC AFFAIRS

English (emphasis on composition--also recommend literature and grammar and strongly recommend one year of speech/debate)	4
Mathematics (three years at the college preparatory level; no more than one year of business or consumer mathematics)	4

Natural science (including one year of laboratory science)	3
Social science (including one year of U.S. or world history)	2
Foreign language (all units must be in a single language)	2
Academic elective	1
Total	16

Students with MAPS deficiencies may be considered for admission to the university on an individual basis based on the rigor of units completed as well as other admission criteria (e.g., test scores, rank in high school class and GPA) If admitted, students must make up any MAPS deficiencies prior to graduation from the university. Students may make up MAPS deficiencies by successful completion of:

1. courses taken at CU
2. courses taken at other institutions of higher education
3. additional high school credits
4. credit-by-examination programs
5. other requirements as approved by each school or college on the Denver Campus

Admission Requirements for Freshman Students

Freshman admission standards define the level of success and achievement necessary to be admitted to CU Denver and include factors that predict academic success such as scores on the ACT or SAT, high school course work and GPA. Both the subjects the student has studied and how the student has performed will be factors that determine admission to the university.

Applicants being considered for admission to a college or university for the first time after graduating from high school or earning a GED are freshmen for admission purposes, even if any number of college courses were completed prior to high school graduation. College credits earned while in high school may be considered in transfer to the university. Freshmen may apply for admission to the Colleges of Architecture and Planning, Arts & Media, Engineering and Applied Science, Liberal Arts and Sciences, the School of Public Affairs and the Business School.

Freshman applicants must be high school graduates, be enrolled in a program of study leading to high school graduation, or have been awarded a High School Equivalency Certificate by completing the General Education Development (GED) test and are subject to the state of Colorado as outlined in the following web pages:

<http://catalog.ucdenver.edu/content.php?catoid=10&navoid=1336&preview#HEAR>

and

<http://catalog.ucdenver.edu/content.php?catoid=10&navoid=1336&preview#MAPS>.

Bachelor of Arts or Science to Medical Doctor (BA/BS-MD) Program

BA/BS-MD applicants must first apply and be accepted for freshman admission in any CU Denver program of study. If academically qualified, a supplemental BA/BS-MD application must then be submitted along with all required documents and credentials by the published BA/BS-MD deadline date. To be considered, applicants must be classified as Colorado residents for tuition purposes. Intended for highly qualified students from diverse backgrounds, the BA/BS-MD program offers a limited number of "reserved" positions at the University of Colorado School of Medicine. For additional information, visit <http://babsmd.ucdenver.edu/>.

Admission Consideration

Architecture and Planning, College of

Architecture applicants will receive priority consideration if they have fulfilled all HEAR and MAPS requirements if applicable, graduated in the top 25 percent of their high school class and achieved a composite score of at least 26 on the ACT (16 or higher in English) or a combined score of at least 1100 on the SAT (excluding essay with 410 or higher in critical reading). For architecture admission, applicants must have an admission index score of 103. (See http://www.ucdenver.edu/admissions/Documents/admission_index.pdf .) Applicants not meeting requirements for direct admission to architecture are automatically considered for admission as undeclared majors in the College of Liberal Arts and Sciences.

Arts & Media, College of

For majors other than music, arts and media applicants will receive priority consideration if they have fulfilled all HEAR and MAPS requirements if applicable, graduated in the top 30 percent of their high school class and achieved a composite score of at least 21 on the ACT (16 or higher in English) or a combined score of at least 950 on the SAT (excluding essay with 410 or higher in critical reading). For arts and media admission, applicants must have an admission index score of 93. . (See http://www.ucdenver.edu/admissions/Documents/admission_index.pdf .)

Music applicants receive priority consideration if they meet at least the minimum criteria above for arts and media admission AND complete additional music application requirements by the posted music application deadline date. For all emphases, an aural skills examination is required. For all emphases except the non-audition tracks in music business and recording arts, an audition is required. Music admission is open only for fall semester and is competitive for all students. Complete application files are pooled and reviewed by a selection committee. Visit the music department website for additional information:

<http://www.ucdenver.edu/academics/colleges/CAM/programs/meis/Pages/index.aspx> .

Business School

Business applicants will receive priority consideration if they have fulfilled all HEAR and MAPS requirements if applicable, graduated in the top 25 percent of their high school class and achieved a composite score of at least 26 on the ACT (16 or higher in English) or a combined score of at least 1100 on the SAT (excluding essay with 410 or higher in critical reading). For business admission, applicants must have an admission index score of 103. . (See http://www.ucdenver.edu/admissions/Documents/admission_index.pdf .) Applicants not meeting requirements for direct admission to the Business School will be automatically considered for admission as prebusiness majors in the College of Liberal Arts and Sciences.

Engineering and Applied Science, College of

Engineering applicants will receive priority consideration if they have fulfilled all HEAR and MAPS requirements if applicable, graduated in the top 25 percent of their high school class and achieved a composite score of at least 26 on the ACT (16 or higher in English and 28 or higher in mathematics) or a combined score of at least 1100 on the SAT (excluding essay with 410 or higher in critical reading and 600 or higher in mathematics). For engineering admission, applicants must have an admission index score of 103. . (See http://www.ucdenver.edu/admissions/Documents/admission_index.pdf .) Applicants not meeting requirements for direct admission to engineering programs will be automatically considered for admission as preengineering majors in the College of Liberal Arts and Sciences.

Liberal Arts and Sciences, College of

Liberal arts and science applicants will receive priority consideration if they have fulfilled all HEAR and MAPS requirements if applicable, graduated in the top 30 percent of their high school class and achieved a composite score of at least 21 on the ACT (16 or higher in English) or a combined score of at least 950 on the SAT (excluding essay with 410 or higher in critical

reading). For liberal arts and science admission, applicants must have an admission index score of 93. . (See http://www.ucdenver.edu/admissions/Documents/admission_index.pdf .)

Public Affairs, School of

Criminal justice applicants in the School of Public Affairs will receive priority consideration if they have fulfilled all HEAR and MAPS requirements if applicable, graduated in the top 30 percent of their high school class and achieved a composite score of at least 21 on the ACT (16 or higher in English) or a combined score of at least 950 on the SAT (excluding essay with 410 or higher in critical reading). For criminal justice admission, applicants must have an admission index score of 93. . (See http://www.ucdenver.edu/admissions/Documents/admission_index.pdf .)

Applicants for all departments who do not satisfy the requirements for priority consideration are reviewed on an individual basis.

How to Apply

1. Students are encouraged to apply online at <http://www.ucdenver.edu/admissions> . A paper application for undergraduate admission may also be used and can be obtained from a Colorado high school counselor or downloaded from the CU Denver website at <http://www.ucdenver.edu/admissions> . A paper application may be requested via email at admissions@ucdenver.edu or by calling the Office of Admissions at 303-556-2704.
2. The application must be completed and submitted online or mailed to the Office of Admissions along with a \$50 (subject to change) nonrefundable application fee. For online applications, the fee may be paid with a credit card, check, e-check, or money order; for paper applications, a check or money order is required for fee payment. For applicants who are granted admission but are unable to enroll for that term, the \$50 application fee will remain valid for 12 months, provided the Office of Admissions is informed of the intent to enroll for a later term and the student does not enroll at another college or university.
3. Students are required to have their high school send an official transcript of their high school grades, including class rank if available, to the Office of Admissions. For applicants currently enrolled in high school, final official transcripts are also required after the high school graduation date is officially posted. Official transcripts are those sent by the issuing institution or sent electronically through *Docufide* directly to: Office of Admissions, University of Colorado Denver, Campus Box 167, P.O. Box 173364, Denver, CO 80217-3364. Faxed, copied or electronic copies sent other than through *Docufide* are not official. Hand-carried copies are official only if delivered in a sealed envelope originating at the issuing institution.
4. Students who did not graduate from high school are required to have a copy of their GED test scores and GED certificate sent directly from the certifying agency to the CU Denver Office of Admissions. For GED applicants, GED scores and ACT or SAT scores are the basis for the admission decision. GED applicants must also submit official high school

transcripts for a complete applicant file, but these records are not factored into the admission review process.

5. Students are required to take either the ACT (essay portion is optional) or the SAT and request that test scores be sent to CU Denver (ACT code 0533, SAT code 4875). High school students may obtain ACT and SAT test dates and locations from their counselors. Scores from national exams or the Colorado junior ACT exam are accepted. Residual exams are accepted ONLY if administered by Metropolitan State University of Denver. Other residual exams are not accepted. Students who took one or more of these tests while in high school may use the test scores reported on their official high school transcript as an official test score report. Applicants who did not designate CU Denver as a score recipient and/or whose scores are not posted on high school transcripts must notify the testing agency to send scores to CU Denver. A request for additional score reports may be requested from any of the offices listed below.

American College Testing Program (ACT)

P.O. Box 451

Iowa City, Iowa 52243

319-337-1313

<http://www.ACT.org> school code: 0533

The College Board (SAT)

P.O. Box 8057

Mount Vernon, IL 62864

866-756-7346

<http://www.collegeboard.org> school code: 4875

6. Students who completed college course work while in high school must submit an official transcript from each college or university attended.
7. International students must submit an international student application for admission, \$75.00 application fee, and provide additional documentation. (For more information see the Information for International Students:
<http://catalog.ucdenver.edu/content.php?catoid=10&navoid=1338> .)

Credentials

All credentials presented for admission become the property of the University of Colorado and must remain on file. Original documents and/or copies of submitted documents are not returned or provided to students.

Students who knowingly falsify transcripts or test scores or who fail to indicate and provide credentials from all previously attended institutions will be denied admission to, or will be disenrolled from, the university.

Freshman Housing Requirement

First-time freshmen under age 20 not living at home with parents or otherwise receiving a housing exemption are required to live in Campus Village Apartments. See Student Housing in

the Campus Life section of this catalog for additional information:

http://catalog.ucdenver.edu/content.php?catoid=10&navoid=1343#Student_Housing .

After Admission - Advising and Enrollment

Several months before the start of each semester, freshmen accepted for admission to the university will receive information about activating their official University of Colorado Denver UCDAccess portal and email accounts, receiving required academic advising, attending freshmen orientation and timelines and procedures for course registration. For best course availability, students should attend orientation/and or advising sessions to receive required advisor approval and register for courses as early as possible.

All credentials presented for admission become the property of the University of Colorado and must remain on file. Original documents and/or copies of submitted documents are not returned or provided to students.

Students who knowingly falsify transcripts or test scores or who fail to indicate all previously attended institutions will be denied admission to, or will be disenrolled from, the university.

Applicants Not Granted Admission

An applicant who is not granted admission as an entering freshman may wish to consider transferring to the university after successful study elsewhere. To be considered for transfer student admission, such students must complete from one full semester (13 minimum semester hours) to one year (30 minimum semester hours) of college-level course work at another college or university. Students should select courses that will provide sound academic preparation for future transfer.

Freshman students who are not admissible are encouraged to participate in the Admissions Promise program that CU Denver has established with select Colorado community colleges.

Admission Requirements for Transfer Students

Applicants are considered as transfer students for admission purposes if they have completed any number of college courses after graduating from high school or earning a GED. Applicants with any number of college courses taken only prior to high school graduation are considered as freshmen for admission purposes and should consult the Admission Requirements for Freshmen section

(http://catalog.ucdenver.edu/content.php?catoid=10&navoid=1336#Admission_Requirements_for_Freshmen).

Transfer applicants who graduated from high school in 1988 or later are subject to MAPS requirements. (See

<http://catalog.ucdenver.edu/content.php?catoid=10&navoid=1336&preview#MAPS> .) Transfer students who graduated from high school in 2008 or later and have fewer than 30 college credits* completed at the time of application are subject to HEAR requirements in addition to MAPS. (See

<http://catalog.ucdenver.edu/content.php?catoid=10&navoid=1336&preview#HEAR>.) Transfer applicants must have earned a high school diploma or GED regardless of the number of college credits completed.

Admission Consideration

Students with 12 or fewer semester hours of completed college-level course work* at the time of application are considered for admission based on high school GPA, high school courses/units completed, rank in class, ACT or SAT scores and college or university GPA.

Students with 13 to 29 semester hours of completed college-level course work* at the time of application are considered for admission based primarily upon performance in college courses, but high school transcripts are still required. ACT or SAT scores are desirable, but not required.

Students with 30 or more semester hours of completed college-level course work* at the time of application are considered for admission based upon college course work alone. High school school records and ACT or SAT scores are not required.

The cumulative GPA is calculated as or converted to a 4.0 scale and will include all college or university course work attempted, including course work from foreign institutions.

**Only coursework that was completed after graduation from high school or completion of a GED is counted in these totals.*

Admission Criteria by Academic Program **Architecture and Planning, College of**

A minimum 2.75 cumulative GPA is required, but applicants with at least a 2.3 cumulative GPA may be considered on an individual basis if the academic record shows consistent improvement and/or strong performance in science, mathematics art or architecture-oriented courses.

Applicants not offered direct admission to the architecture program will be automatically considered for admission as undeclared majors in the College of Liberal Arts and Sciences.

Arts & Media, College of

A minimum 2.4 cumulative GPA is required, but anyone with at least a 2.0 cumulative GPA may be considered. Music majors are considered for fall semester only, have a required audition (except non-audition tracks in Music Business and Recording Arts) and other additional application requirements which must be completed by the Department of Music deadline. (Visit <http://cam.ucdenver.edu/meis> .) Admission to the music major is selective and qualified applicants are pooled and reviewed by an admissions committee.

Business School

A minimum 3.0 cumulative GPA on at least 24 semester hours that apply to the business degree program, or a 3.0 in the 24 most recent semester hours that apply to the business degree program is required. The business course GPA must be at least a 2.0. Students with at least a 2.6 cumulative GPA are considered on an individual basis. Applicants with fewer than 80 college credits who are not offered direct admission to the Business School will be automatically

considered for prebusiness admission in the College of Liberal Arts and Sciences. Students who have earned a previous undergraduate degree in business may not apply for a second undergraduate degree in business.

Engineering and Applied Science, College of

Bioengineering: There is no direct admission to Bioengineering; applicants apply and are considered for admission to the prebioengineering program. For prebioengineering admission, a full year each of college calculus, general biology with labs and general chemistry with labs and one semester of calculus-based physics with lab must be completed with "B" or better grades. The cumulative GPA must be at least 2.75. Applicants with fewer than 80 college credits not accepted for direct admission to prebioengineering are considered for admission as undeclared majors in the College of Engineering and Applied Science or for preengineering admission in the College of Liberal Arts and Sciences.

Civil Engineering, Computer Science and Engineering, Electrical Engineering, Mechanical Engineering and Undeclared Engineering: One full year each of college calculus and calculus-based physics (or calculus-based physics I and general college chemistry I) must be completed with B or better grades. Grades of B are required in all other math and science courses and the cumulative GPA must be at least 2.75. Students meeting most, but not all of these standards are fully considered. Applicants with fewer than 80 college credits who are not offered admission to the College of Engineering and Applied Science will be automatically considered for preengineering admission in the College of Liberal Arts and Sciences.

Liberal Arts and Sciences, College of

A minimum 2.4 cumulative GPA is required (excludes BA/BS-MD program), but anyone with at least a 2.0 cumulative GPA may be considered.

Public Affairs, School of

A minimum 2.4 cumulative GPA is required, but anyone with at least a 2.0 cumulative GPA may be considered.

How to Apply

1. Students are encouraged to apply online at www.ucdenver.edu/admissions. A paper application for undergraduate admission may also be used and can be downloaded from the CU Denver website at www.ucdenver.edu/admissions. A paper application may be requested via email at admissions@ucdenver.edu or by calling the Office of Admissions at 303-556-2704.
2. The application must be completed and submitted online or mailed to the Office of Admissions along with a \$50 (subject to change) nonrefundable application fee. For online applications, the fee may be paid with a credit card, check, e-check, or money order; for paper applications, a check or money order is required for fee payment. For applicants who are granted admission but are unable to enroll for that term, the \$50 application fee will remain valid for 12 months, provided the Office of Admissions is

informed of the intent to enroll for a later term and the student does not enroll at another college or university.

3. Students must request that one official transcript be sent directly from each college or university attended, including foreign institutions, directly to the CU Denver Office of Admissions. Transcripts are considered official if received in this manner or received electronically through *Docufide*. Hand-carried transcripts or transcripts sent by the student are considered official only if delivered in the original sealed envelope of the issuing institution. All other transcripts are unofficial. If not in English, a certified English translation must accompany each official transcript. Official transcripts should be sent to:

Office of Admissions
University of Colorado Denver
Campus Box 167
P.O. Box 173364
Denver, CO 80217-3364

4. For students who have completed fewer than 13 college-level semester hours at the time of application, official high school transcripts, GED scores (if applicable) and ACT or SAT scores must also be submitted. ACT or SAT scores recorded on the high school transcript are considered official.
5. For students who have completed between 13 and 29 college-level semester hours at the time of application, official high school transcripts and GED scores (if applicable) must also be submitted.

Please Note

- If you apply for admission while enrolled in your first semester of college or university courses, a current semester progress report form will be sent to you and required as part of the application process. A final official college or university transcript is also required and should be sent to the Office of Admissions at the end of the semester or term.
- If you are a continuing college or university student at the time you apply for admission, official transcripts showing course work completed to date should be sent as indicated above. You must also request that a final official transcript be sent to the Office of Admissions when grades are recorded at the end of your final semester or term.
- All credentials presented for admission consideration become the property of the University of Colorado and will not be copied for or returned to the student.
- The University of Colorado Denver reserves the right to deny admission to transfer students not deemed to have completed college-level course work at the sending institution and/or those who are not eligible to return to their previous college or university campuses.
- Students who knowingly falsify transcripts or test scores or who fail to indicate all previously attended institutions will be denied admission to, or will be disenrolled from, the university.
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After Admission - Advising and Enrollment

Accepted transfer students who have submitted official transcripts will receive a transfer credit evaluation which will include advising office contact information. Students should schedule an advising appointment or contact their advisor for assistance with applying transfer credits to degree requirements. Advisor approval is required for new students prior to registering for CU Denver courses in their first semester.

Several months before classes begin, additional information about activating your official UCDAccess portal and course registration timelines and processes will be provided. For best course availability, students are encouraged to receive advisor approval and register for courses as early as possible. If admitted for fall or spring semester, students will receive an invitation for the new student welcome program from the orientation office.

Transfer of College-Level Credit

Student course work of comparable content and scope to that of the University of Colorado Denver curriculum will be considered for transfer credit if it was completed at a college or university with regional accreditation. If coursework was completed at an institution not regionally accredited, the student may specifically request that credit be considered in transfer by initiating a review process which begins with the student's academic advisor. Only courses in which a grade of C- or better (1.7) was earned are considered for transfer. Courses in which a grade of Pass (P) was earned are considered for transfer only if a grade of Pass at the sending institution is defined as a C- or better. Courses identified on transcripts as State of Colorado guaranteed transfer courses (gtPATHWAYS) are always accepted in transfer (with C- or better grades) and applied to degree requirements per gtPATHWAYS guidelines.

Developmental, remedial, religious doctrinal, religious training, single religion, outdoor leadership, student orientation, internship and cooperative education courses are not accepted in transfer. Vocational/technical courses are not accepted in initial transfer but exceptions may be granted by the dean responsible for the student's curriculum. Independent Study, Special Topics and other experiential learning programs that lack catalog descriptions are not accepted in initial transfer but may be reviewed for transfer consideration by the corresponding academic department. Students wishing to appeal transfer credit decisions should contact their school or college advisor. Except for developmental/remedial courses, academic departments make final decisions on transfer credit appeals.

After all official transcripts have been received and the student is admitted as a degree-seeking student, the Office of Admissions prepares a transfer credit report indicating which courses have been accepted in general transfer by CU Denver. After this report has been completed, the student is notified and directed to contact his/her academic advisor who will determine how transferred credit applies to specific degree requirements, sometimes using automated systems and with assistance from academic departments. Transfer courses and/or exams considered to be duplicated credit do not apply to degree requirements, unless an exception is granted by an academic unit. Academic units make all final decisions regarding application of transfer credit to degree requirements. Transfer credit evaluations are valid only for degree programs offered entirely at the Denver campus.

Courses are accepted in initial transfer to CU Denver and applied to graduation requirements at the same level as listed on the transcript from the sending institution. Transfer courses that have similar content to specific CU Denver courses, but are listed on transcripts at a different level, may be substituted on a content basis for CU Denver courses upon approval from the academic unit. Such courses, however, apply to overall requirements at the level listed by the sending institution unless an exception has been granted. Only undergraduate courses are considered in transfer.

The Office of Admissions considers course work for general transfer regardless of the age of the academic credit. Certain departments, however, have specific age of credit policies for applying credit to degree requirements and for meeting prerequisites. State guaranteed general education courses will be accepted in transfer and applied to graduation requirements for a period of at least 10 years after course completion as outlined in gtPATHWAYS guidelines.

The Business School generally limits its transfer of business course credits to those that are comparable to lower-division business courses at CU Denver. Students who have taken upper-division business courses from an Association for Advancement of Collegiate Schools of Business (AACSB) accredited business program may request review of these courses for possible transfer by contacting the Business School advising office. All courses taken in the business area of emphasis must be completed at CU Denver.

The College of Engineering and Applied Science, in general, requires that engineering course transfer credit must come from an Accreditation Board for Engineering and Technology (ABET) accredited engineering program to be acceptable for degree purposes. Engineering technology courses are not considered equivalent to engineering courses.

A maximum of 60 total semester hours is acceptable in transfer from community or junior colleges. A maximum of 90 semester hours is acceptable from four-year institutions or a combination of two- and four-year institutions, with no more than 60 from two-year schools. For students with acceptable transfer credit in excess of these limits, advisors will apply the best fit courses to requirements.

Colorado Community College Transfer

Guaranteed Transfer

In compliance with Colorado's Statewide Transfer Policy, students may transfer credit from a Colorado community college on a course-by-course basis or by completing an associate of arts (AA) or associate of science (AS) degree. Students who complete an AA/AS degree may be guaranteed full transfer of the associate degree (60 credits maximum).

The guaranteed transfer program applies only to students who began Colorado community college studies in fall 2003 or later and who meet the following requirements:

- complete an AA/AS degree, which includes 31 credits of state-guaranteed general education courses
- earn credit only at Colorado community colleges within the last 10 years

- earn a grade of C- or better in each course

Statewide articulation agreements are in place governing transfer of students from Colorado community colleges into programs in anthropology, business, economics, elementary education teacher licensure, engineering, French, history, mathematics, political science, psychology, sociology and Spanish.

Transfer advising plans for Colorado Community College students are available from the Office of Admissions and at www.ucdenver.edu/admissions. In addition, an admissions representative can assist students with planning a transfer program of study. Representatives regularly visit Colorado community colleges. Call the Office of Admissions at 303-556-2704 or e-mail admissions@ucdenver.edu for additional information.

Advanced Placement Program

The Advanced Placement Program of the College Entrance Examination Board (CEEB) allows students to take advanced work while in high school and then be examined for credit at the college level. Students who take advanced placement courses and subsequently receive scores of 4 or 5 on the CEEB Advanced Placement Examination are generally given college credit for lower-level courses in which they have demonstrated proficiency. With some exceptions, credit is also granted for scores of 3 plus a course grade of A or A- in the second semester course for the corresponding subject. For more information, contact your academic advisor and click on the following chart. Original, official score reports are required for credit award consideration.

See the Advanced Placement Program Requirements (AP) chart:

<http://catalog.ucdenver.edu/content.php?catoid=10&navoid=1198>.

College-Level Examination Program

Incoming students may earn university credit by examination in some subject areas in which they have demonstrated college-level proficiency. Interested students may take approved examinations through the College-Level Examination Program (CLEP) of the College Entrance Examination Board (CEEB) testing service.

Acceptable CLEP examinations and credit awards are outlined in the following chart. Original, official CLEP score reports are required for credit award consideration.

See the College Level Examination Program (CLEP) chart:

<http://catalog.ucdenver.edu/content.php?catoid=10&navoid=1199>.

International Baccalaureate Diploma Program

The International Baccalaureate Diploma Program (IB), available at select high schools, is a rigorous, pre-university course of study emphasizing liberal arts from an international perspective.

In accordance with HB 03-1108, the University of Colorado Denver will grant at minimum 24 semester hours of credit for any student who has graduated from high school having successfully completed an International Baccalaureate diploma program with a minimum score of 4 on each

exam. Credit may be granted for most, but not all, individual IB courses where examinations are completed with at least a score of 4 for students who do not complete an IB diploma program. For additional information, students should contact their academic advisors and refer to the following chart. Original, official IB transcripts with exam scores are required for credit award consideration.

See the International Baccalaureate (IB) chart:

<http://catalog.ucdenver.edu/content.php?catoid=10&navoid=1200> .

Military Service and Schooling

To have credit for educational experiences evaluated, applicants with military experience will be required to submit the DD-214 to the Office of Veterans Student Services. Applicants should also submit the Smart Transcript and official Dantes Subject Standard Test (DSST) score reports (if applicable) to the Office of Admissions for additional credit consideration. For students with other military credit for which a separate transcript is issued, such as Community College of the Air Force (CCAF) or Army/American Council on Education Registry Transcript System (AARTS), official transcripts should be sent to the Office of Admissions.

Military Service and Other Credit

It is the policy of the University of Colorado Denver to award transfer credit for military courses and/or military service based on the recommendations of the American Council on Education (ACE)'s Guide to the Evaluation of Education Experiences in the Armed Services, provided such credit is generally applicable to CU Denver programs of study. (See <http://www.militaryguides.acenet.edu/> .) For DSST exams, only upper level credit as recommended by the ACE guide is considered in transfer. For military transcripts such as CCAF and AARTS, transfer credit is considered on the same basis as transcripts from traditional collegiate institutions.

Upon review of the DD-214, either elective or core course credit will be awarded based on ACE recommendations. Specifically, three credits of lower division Social Science core credits will be granted for prior service members who attended basic training (all services), and three credits of lower division humanities core credits will be awarded to those who have completed a Non-Commissioned Officer (NCO) Academy (all services). Elective Credit is based on either rank at time of separation or length of service, six elective credits will be awarded for the rate of enlisted 4 (E4) or lower, or one enlistment (four years) or less. Twelve elective credits will be granted to those who held the rate of Enlisted 5 (E5) or higher, or more than one term of service (five years or more).

The applicability of electives is determined by the student's major and/or college. Proficiency credit (requirement will be waived, credit will not be awarded) for International Perspectives is

available for military related students who served at least six months of an overseas deployment. The language requirement will also be waived for students who attended an official Military Language Training Institute of 6 months or more. In addition, the Business Experiential Learning Requirement will be waived for prior military members.

For any questions or further information regarding military credit transfer, please contact the CU Denver Office of Veteran Student Services at 303.556.2745 (DD-214 credit consideration) or the Office of Admissions (other military credit consideration) at 303-55

Reserve Officers Training Corps (ROTC)

The Air Force, Navy/Marines, and Army offer college students the opportunity to receive a commission as an officer through the Reserve Officers Training Corps (ROTC) program. These military training programs occur in conjunction with a student's undergraduate coursework and lead to a commission upon graduation. All ROTC programs offer competitive scholarships, allow for elective academic credit depending on policies of the student's home school or college, and include a commitment to military active or reserve duty.

The University of Colorado Denver actively supports students desiring to participate in one of the ROTC programs and provides registration access to Army ROTC (sponsored by the Metropolitan State University of Denver) and to Navy/Marines or Air Force ROTC (sponsored by the University of Colorado Boulder).

Interested students should contact the specific ROTC program directly for military training, scholarship information, and registration details.

Air Force ROTC

AFROTC Detachment 105
University of CO Boulder
UCB 371
Boulder, CO 80309-0371
Phone: (303) 492-3128; (303) 492-8352

Navy/Marines ROTC

Naval ROTC
University of CO Boulder
UCB 374
Boulder, CO 80309-0374
Phone: (303) 492-2576

Army ROTC

Dept. of Military Science
633 Curtis Street
Modular Building MO-1

Denver, CO 80217

Phone: (303) 352-7419

Transfer students enrolled in Army, Air Force, or Navy/Marines ROTC programs should consult with their school or college regarding the application of ROTC course credit toward graduation requirements.

Intra-University Transfer

Students on the Denver Campus may change colleges or schools within the university provided they are accepted by the college or school to which they wish to transfer. Intra-university transfer forms may be obtained from the student's school or college or from the Office of the Registrar. Decisions on intra-university transfers are made by the college or school to which the student wishes to transfer.

Students in continuing and professional studies programs wishing to enroll in regular courses or degree programs on the Denver Campus should apply for admission to CU Denver. Visit www.ucdenver.edu/admissions or contact the Office of Admissions at 303-556-2704 or email admissions@ucdenver.edu for assistance with application processes and options.

Readmission Requirements for Former Students

CU Denver students who have not registered and attended classes on the Denver Campus for one year or longer and who have not attended another institution since the University of Colorado are considered returning students and must formally apply for readmission. An additional application fee is only required if changing from undergraduate to graduate or nondegree to degree status or if a degree was earned and the student is applying for a second degree. Students applying for readmission may complete an online application (preferred) or download an application form at www.ucdenver.edu/admissions. If applying online and a fee is not required, students should indicate "pay by check" when prompted for application fee payment. The fee requirement is then removed during application processing. A paper application may also be requested by calling 303-556-2704 or by e-mail at admissions@ucdenver.edu.

Students who have attended another college or university since last attending the University of Colorado must apply as transfer students and meet the admission criteria and transfer student deadlines for receipt of documents. This requires payment of the \$50 (subject to change) nonrefundable application fee and submission of one official transcript from each college or university attended since last enrollment at CU Denver. Transcripts must be sent *directly* from the issuing institution to:

Office of Admissions
University of Colorado Denver
Campus Box 167

P. O. Box 173364
Denver, CO 80217-3364

Students who last attended another University of Colorado campus as a degree seeking student must formally apply for admission and meet the admission criteria of CU Denver. An application fee is not required unless going from undergraduate to graduate status, from nondegree to degree status or if a degree was earned. Students may apply online (preferred) or download a paper application at www.ucdenver.edu/admissions . If applying online, students should indicate "pay by check" when prompted for application fee payment. The fee requirement is then removed during application processing. A paper application may also be requested by calling 303-556-2704 or by e-mail at admissions@ucdenver.edu. University of Colorado transcripts are not required, but official transcripts from each college or university attended prior to enrollment at the University of Colorado must be submitted.

Admission of Nondegree Students

Students who are at least 20 years of age and wish to take university courses, but do not plan to work toward a University of Colorado degree, may be admitted as nondegree students provided they have at least a 2.0 cumulative collegiate GPA and are eligible to return to all collegiate institutions previously attended. Questions regarding admission as a nondegree student should be directed to the Office of Admissions. Each school/college limits the number of semester hours taken as a nondegree student that may be transferred to a degree program.

Students considering changing from nondegree to degree status will need to apply as an undergraduate or graduate degree seeking student and meet the admission requirements of the intended program of study. Students under age 22 will be required to submit high school transcripts and ACT/SAT scores in addition to official college transcripts from each institution attended, regardless of the number of credit hours completed.

Note: International students are not admitted as nondegree students.

Financial Implications for Nondegree students

Students with a baccalaureate degree who are admitted as nondegree students will be classified as nondegree graduate students and assessed graduate tuition regardless of the level of courses taken. If enrolling only in undergraduate courses, an adjustment may be requested through the Office of the Registrar (<http://ucdenver.edu/registrar>) to pay the undergraduate tuition rate. However, the Colorado Opportunity Fund (COF) is not available to in-state nondegree graduate students. To utilize COF and pay the lowest tuition rate, students must apply as undergraduate degree-seeking students, even if a degree is not desired. Note: Students who have completed an undergraduate degree in business will not be accepted for second undergraduate degree-seeking status in the Business School.

Nondegree students are not eligible to receive federal or state financial aid, student loans and most CU Denver scholarships.

How to Apply

To apply for admission as a nondegree student, visit www.ucdenver.edu/admissions/nondegree and submit your application online (preferred) or download a paper application. You may also obtain a paper application by calling 303-556-2704 or by email at admissions@ucdenver.edu. Submit the completed application by the deadline for the term desired. A \$50 (subject to change) nonrefundable application fee is required. No additional credentials are required. *Nondegree students admitted prior to "open registration" for a given semester are advised that registration for courses is done by time assignment, and nondegree students have the latest registration time assignments regardless of the number of credits completed. Admission as a nondegree student does not assure availability of specific courses.*

Continuation as a nondegree student with no prior undergraduate degree is contingent upon maintaining an overall GPA of 2.0 upon completion of 12 or more semester hours.

Admission of Students Seeking a Second Undergraduate Degree

Students who already hold a bachelor's degree in any major other than business may apply for admission to any undergraduate program and work toward completion of a second undergraduate degree. Applicants with an undergraduate degree in business may apply for graduate programs or for undergraduate programs in the College of Architecture and Planning, College of Arts & Media, College of Engineering and Applied Science, College of Liberal Arts and Sciences or the School of Public Affairs. Applicants for a second undergraduate degree must meet CU Denver admissions standards.

How to Apply

1. Apply online or request an application for undergraduate admission from the Office of Admissions at www.ucdenver.edu/admissions.
2. Complete the application and send it to the Office of Admissions with a \$50 (subject to change) nonrefundable application fee.
3. Have one official transcript sent to the Office of Admissions from each collegiate institution attended. Official transcripts for enrollment at any campus of the University of Colorado are not required. Official transcripts are those sent by the issuing institution *directly* to:
Office of Admissions
University of Colorado Denver
Campus Box 167
P.O. Box 173364
Denver, CO 80217-3364

Hand-carried or faxed copies are not official.

Transcripts from the institution where the first undergraduate degree was earned must have final grades posted for the semester that the student graduated and have the official notation of the degree awarded.

All credentials presented for admission become the property of the University of Colorado and must remain on file. Students who do not declare all previously attended institutions are subject to disciplinary action and/or dismissal.

Students who knowingly falsify transcripts or test scores will be denied admission to, or will be disenrolled from, the university.

High School Postsecondary and Concurrent Enrollment

High school juniors and seniors with demonstrated academic abilities may be admitted to CU Denver with special approval for one term only. This approval may be renewed. Credit for courses taken may subsequently be applied toward a university degree program, if applicable. For more information and application instructions, contact the Office of Admissions, 303-556-6745 or email admissions@ucdenver.edu.

Admission Requirements for International Students

The University of Colorado Denver is proud to have a diverse population of international students coming from more than 100 countries. Instructions for international student admissions are available in Information for International Students. (See <http://catalog.ucdenver.edu/content.php?catoid=10&navoid=1338> .) International application forms are accessible on the international admissions website at www.internationaladmissions.ucdenver.edu .

New Student Orientation

New Student Orientation

New Student Orientation is designed to help students make the best possible transition to the University of Colorado Denver. Specific orientation programs are available throughout the academic year. For more information regarding orientation dates, please call (303) 315-3503 or visit us online at www.ucdenver.edu/orientation .

Freshmen

All first-time freshmen are required to participate in orientation. Specific activities for first-time freshmen include: academic advising; registration for courses; introduction to campus resources and policies; and the opportunity to meet other students. Family and friends are welcome to attend a freshmen orientation with their student.

Transfer, Graduate and Non-Degree

Spring and Fall Welcomes will be held in January and August, respectively, for all new students transitioning to CU Denver. Specific transfer sessions will be offered throughout the school year. Graduate students should verify with their specific school or college before attending an orientation session.

Four-Year Graduation Guarantee

The University of Colorado Denver has adopted a set of guidelines to define the conditions under which an undergraduate student will be guaranteed to graduate in four years. More information is available through the undergraduate advising offices for each college and the major program offices. The Denver Campus has five undergraduate colleges in which this guarantee applies: College of Arts & Media, Business School, College of Engineering and Applied Science, College of Liberal Arts and Sciences and School of Public Affairs.

CU Denver guarantees that if a student begins studies in a fall semester and lack of scheduling of essential courses is found to have prevented a student from completing all course work necessary for a BA, BFA or BS degree from the university by the end of the student's eighth consecutive fall and spring semester, the college/school shall provide tuition plus any course fees for all courses required for completion of the degree requirements. This applies *only* when needed courses are *not offered* by the college/school and does not apply to scheduling conflicts for individual students. *Students must satisfy all the requirements described below to be eligible for this guarantee.*

This guarantee applies to all students who enroll beginning in a fall term as first-semester, full-time freshmen without admission deficiencies, who do not need remedial course work and who satisfy all the requirements described below. This guarantee does not include completion of all options within the major, a second major, a double degree, a minor or a certificate program. The four-year graduation guarantee does not apply to programs in which the degree has been discontinued or is in the process of being phased out. In these cases, every effort will be made to allow students to fulfill requirements by taking courses at other universities and colleges to facilitate timely completion of the degree.

Some study abroad programs may not provide a sufficient range of courses to allow students to meet the requirements, thus, students who participate in study abroad programs during the fall or spring semesters may not be eligible for this guarantee. A student may be able to participate in a study abroad program during the summer semester and still meet all the requirements of this guarantee. It is essential that a student work closely with an advisor to determine if the student can participate in a study abroad program and still meet all the requirements of this guarantee.

Requirements

Students must satisfy all of the following requirements to be eligible for this guarantee.

1. Students must begin studies in a fall semester and enroll in CU Denver course work as specified on the student plan of study for eight consecutive fall and spring semesters.
2. Students must complete all required course work by the end of the eighth semester.
3. No fewer than 60 semester hours of applicable course work must be completed successfully by the end of the second year (24 calendar months); 90 semester hours by the end of the third year (36 calendar months); and 120 semester hours by the end of the fourth year (48 calendar months). Students must successfully complete an average of 15 semester hours each semester.

4. Students must meet with their college advisor and their major advisor for academic advising during the first, third, fifth and seventh semesters of study.
5. The major must be declared no later than the end of the first semester of study and students must not change their major or any options within the major.
6. A required plan of study toward the major must be agreed upon and signed by the student and advisor at the end of the first semester. Thereafter students must make satisfactory progress toward completing the major, as defined by each major, and the general education requirements. Courses with certain grades may not meet the satisfactory progress requirement of this guarantee. A statement of what constitutes satisfactory progress and what grades are acceptable is available from the major or departmental office at the time the major is declared.
7. A minimum of 30 semester hours of college general education courses should be completed by the end of the second year, including core curriculum courses that also meet major requirements and foreign language proficiency.
8. All lower-division graduation requirements must be successfully completed by the 90-semester-hour mark.
9. Students must remain in good academic standing according to their school/college academic policies.
10. Grades of C-, C or C+, as defined by the college/school, must be earned in all course work required for the major, and students must have a cumulative GPA of 2.0 in all major course work attempted.
11. Students must register each semester within one week of the student's specified eligibility to register.
12. Students must take courses that are specified in the student plan of study approved by their advisor.
13. Elective courses must be avoided if they conflict with required major or general education courses. Elective courses must not be given a higher priority than required courses.
14. Students must meet all departmental, school or college and university policies regarding graduation requirements.
15. The college/school must be notified in writing of the student's intent to graduate no later than the beginning of the seventh semester of study. A graduation application must be filed no later than the deadline for the appropriate graduation date. The student must complete a graduation checkout/senior audit with their advisor.
16. The student is responsible for and must keep documentation proving that these requirements were satisfied (e.g., records of advising meetings attended, advising records and instructions, etc.).

Undergraduate Experiences

Assistant Vice Chancellor for Undergraduate Experiences: John Lanning,

John.Lanning@ucdenver.edu

Program Coordinator for Undergraduate Experiences: Ingrid Hoff,

Ingrid.Hoff@ucdenver.edu

Office: Lawrence Street Center, Suite 300

Telephone: 303-315-2133

Fax: 303-315-5829

Website: www.ucdenver.edu/UE

The Office of Undergraduate Experiences coordinates and implements education programs designed to promote undergraduate student access to high-quality and innovative CU Denver programs, improve the recruitment and retention of undergraduate students, and coordinate programs between academic and student affairs to better serve students. Undergraduate Experiences oversees the University Honors and Leadership program, the First-Year Seminar program, the Experiential Learning Center, and the Early Alert program.

University Honors and Leadership Program (UHL)

Director: Steven G. Medema

Program Coordinator: Phyllis Chaney

Office: 1047 Ninth Street Park

Telephone: 303-556-5297

Fax: 303-556-6744

E-mail: UHL@ucdenver.edu

Website: www.ucdenver.edu/UHL

University Honors and Leadership (UHL) is a program of excellence designed for students who have demonstrated superior achievement in academic performance and/or outstanding leadership qualities. UHL is founded on the premise that the integration of rigorous programs of academic excellence and leadership education provides the ideal environment in which to develop the gifts of the next generation of leaders in academia, business, policy-making, and service to communities local, national, and global.

The four-year UHL program is unique in integrating academic honors and leadership education within a highly selective learning community of outstanding students and faculty. The UHL program allows students to complement their major field of study with a traditional honors experience in the academic honors track or with a program of leadership education in the leadership studies track. Students move through the UHL program in cohorts that simultaneously promote community, teamwork, and individual initiative. All UHL courses are multidisciplinary, reflecting the view that the ability to effectively analyze the challenges faced in all sectors of society can be enhanced by the integration of appropriate information drawn from a broad base of perspectives and problem-solving skills. The UHL program complements this philosophy with an emphasis on the development of exceptional oral and written communication skills, projects that steep students in sophisticated research methods, and the opportunity to work in teams to solve practical problems in the community.

The Academic Program

UHL is a multidisciplinary cohort program consisting of 27 semester hours of coursework to be completed over four years. The UHL courses substitute for most of the CU Denver core curriculum requirements.

UHL students have the opportunity to pursue an honors experience through the academic honors track or to focus on leadership education through the leadership studies track. UHL students have a shared first-year experience, taking a core of coursework common to both tracks. The second and third years of the UHL program offer programs designed specifically for the academic honors and leadership studies tracks. UHL students come together for a two-semester capstone research seminar in the fourth year.

Students pursuing the academic honors track have the opportunity to earn a minor in "Multidisciplinary Research Methods." Those completing the leadership studies track have the opportunity to earn a minor in "Leadership Studies."

UHL students who successfully satisfy the course and credit-hour requirements and maintain a GPA of 3.50 or higher in their UHL courses will graduate with "University Honors."

For more information on the UHL program please see

http://catalog.ucdenver.edu/preview_program.php?catoid=10&poid=2261 .

First-Year Seminar Program

Assistant Vice Chancellor for Undergraduate Experiences: John Lanning,

John.Lanning@ucdenver.edu

Program Coordinator for Undergraduate Experiences: Ingrid Hoff,

Ingrid.Hoff@ucdenver.edu

Office: Lawrence Street Center, Suite 300

Telephone: 303-315-2133

Fax: 303-315-5829

Website: www.ucdenver.edu/FYE

CU Denver offers the optional First-Year Seminar (FYS) program, which is designed to assist students in successfully making the transition from high school to college, improve student retention, and boost new student confidence. FYS courses integrate rigorous academic content with academic skills such as library usage, campus resources, information literacy, time management, communication skills, and career counseling. Class size is capped at 24 students to facilitate interaction between student and instructor, and to allow the instructor to serve as a mentor in the student's first semester of college.

Why should entering high school students participate in a First-Year Seminar course?

- higher first semester grades
- student engagement with campus activities
- higher student satisfaction facilitated by small class size and a faculty mentor
- knowledge and utilization of campus resources designed to assist students
- early exploration of career paths and a suitable major
- more likely to stay in college
- Core curriculum credit
- active learning pedagogy designed to improve writing and critical thinking skills

For more information on the First-Year Seminar program, please see http://catalog.ucdenver.edu/preview_program.php?catoid=10&poid=2150.

Experiential Learning Center (Internships, Service, and Research)

Director: Tony R. Smith

Office, Events, and Assessment Coordinator: Rachel Wilcoxson

Office: Tivoli Student Union, 260

Telephone: 303-556-6656

Website: <http://www.ucdenver.edu/life/services/ExperientialLearning/Pages/default.aspx>

Live your learning at CU Denver! Students have many opportunities to explore academic fields through direct experience, including internships, service in the community, undergraduate research, and international experiences. Connect your academic learning to the real world by putting your knowledge into practice. You will develop new skills, grow personally and professionally, and enrich your academic experience.

INTERNSHIPS (Academic and Not-For-Credit)

Hundreds of CU Denver students engage in degree-related work experiences with corporations, government, and nonprofit agencies in the Denver metro area and around the world. Students can earn academic credit, pay, or both while gaining relevant experience related to their career interests.

COMMUNITY ENGAGEMENT

Students gain a better understanding of community issues, develop practical skills, and make a difference in the world around them when they engage in service activities. From the first-year experience course to senior capstone classes, faculty weave service projects into their courses, giving students a wider view of the world. These service learning experiences vary in length of time, but the impact is always transformational. Many volunteer opportunities that connect students with the local, national, and international communities are available through the Experiential Learning Center. Students can also earn AmeriCorps education awards for service.

UNDERGRADUATE RESEARCH AND CREATIVE ACTIVITIES

Whether assisting faculty with research or pursuing their own research under faculty supervision, CU Denver students can experience what it means to be involved in the creation of knowledge. Students may apply for research grants through the Undergraduate Research Opportunity Program (UROP) and showcase their research projects at the annual *Research and Creative Activities Symposium*. The Experiential Learning Center provides resources for a myriad of opportunities available to CU Denver students.

Early Alert Program

CU Denver participates in the campus-wide Early Alert program to identify undergraduate students in need of assistance from academic and student service offices. Providing assistance early in the semester is very important to a student's success in their baccalaureate program.

The Early Alert program is designed for faculty to identify students in the fifth and sixth weeks of the semester who need assistance because of academic performance, class participation, and/or behavior issues. Students who are identified by faculty for an alert are contacted by the

advising office in the student's home school or college. It is important for students to respond to Early Alert communication with their advisors. Assistance is then provided to students through academic advising and referrals to appropriate CU Denver student service offices.

Further information about the CU Denver Early Alert program is available from the Office of Undergraduate Experiences, 303-315-2133, www.ucdenver.edu/earlyalert.

CU Denver Undergraduate Core and gtPATHWAYS Curriculum

See the CU Denver Core courses.

http://catalog.ucdenver.edu/preview_program.php?catoid=10&poid=2101&print

Core Curriculum

Philosophy of the Core Curriculum

The University of Colorado Denver subscribes to a liberal arts philosophy of education in order to develop a broad set of academic skills for the baccalaureate student and to establish a foundation for lifelong learning. Since 1990, the CU Denver Core curriculum of general education has been a campus-wide program for all undergraduate students, independent of the student's major.

The CU Denver faculty designed the Core curriculum to provide undergraduate students a high quality academic foundation while still allowing flexibility based on students' individual backgrounds and specific career goals. The Core curriculum develops multiple literacies, stimulates creative thinking, and utilizes technology. The Core engages students in developing sensitivity to diversity and developing their place in an urban environment, as well as in the rapidly changing global environment. The Core provides an understanding of ourselves, ours and other cultures, and our environment.

CU Denver Core Curriculum

All undergraduate students must complete a 34-38 semester hour (11 courses) curriculum of general education. CU Denver schools and colleges may have specific requirements within the Core curriculum.

See Core courses for details.

https://ucdenver.acalogadmin.com/preview/preview_program.php?catoid=10&poid=2101

The Core curriculum is outlined below.

Intellectual Competencies: 9-10 hours

Students must earn a minimum letter grade of 'C-' (1.7) in each Intellectual Competency course to satisfy the Core curriculum requirements.

English Composition - two course, 6 hours

Courses provide opportunities to write for different purposes and audiences, with an emphasis on critical thinking, reading, and writing in print-based and electronic contexts.

ENGL 1020, Core Composition I

ENGL 2030, Core Composition II

Mathematics - one course, 3-4 hours

Courses promote critical thinking, logic, quantitative reasoning, and numerical relationships in behavioral, social, and physical phenomena.

any lower division (1000- or 2000-number) MATH course

Knowledge Areas: 19-22 hours

Students may not use core courses in the discipline defined by their major(s) to satisfy Knowledge Area requirements.

Arts and Humanities - two courses, 6 hours

Arts courses celebrate creativity, nurture self-expression, generate an appreciation of artistic and cultural aesthetics, and stimulate thought from a creative perspective. Humanities courses develop the skills necessary for analysis of human development, including contemporary life issues, civic responsibilities, and impacts of social actions.

For students not majoring in either Arts or Humanities, one course must be from the Arts and the second from the Humanities. For students majoring in Humanities, one course must be from the Arts and the second course may be from either category. For students majoring in Arts, both courses must be from the Humanities.

<i>Arts</i>	<i>Humanities</i>
ARTS	ENGL
FINE	ETST
MUSC	Modern Languages - CHIN, FREN, GRMN, SPAN
PMUS	HIST
THTR	PHIL
	RLST

Students planning to transfer to a Colorado public college/university under the gtPathways guaranteed transfer program must take one history course approved as gtPathways HI-1. Students should consult the table of Core courses (see below) for CU Denver approved HI-1 courses.

Behavioral and Social Sciences - two courses, 6 hours

Behavioral science courses develop an understanding of behavior, communication, and analysis of human experience and development. Social science courses develop an understanding of the social, political, and spatial relationships that constitute human society.

For students not majoring in either the Behavioral or Social Sciences, one course must be from the Behavioral Sciences and the second from the Social Sciences. For students majoring in a

Social Science, both courses must come from the Behavioral Sciences. For students majoring in a Behavioral Science, both courses must come from the Social Sciences.

Behavioral Sciences

ANTH
COMM
PSYC

Social Sciences

ECON
EDFN
ENVS
ETST
GEOG
HBSC
PSCI
SJUS
SOCY

Biological and Physical Sciences, Mathematics - two courses, 7-10 hours

Biological and physical science courses develop knowledge through the scientific method, scientific reasoning, and solutions to complex phenomena in nature. Mathematics courses are typically not classified as a science, but do provide the tools to investigate science and to formulate hypotheses.

Students must take one biological or physical science course with a laboratory. The second course may be a science course with or without a laboratory, or may be a mathematics course, excluding the course used to satisfy the Intellectual Competencies mathematics requirement.

Biological and Physical Sciences

ANTH
BIOL
CHEM
ENVS
GEOG
GEOL
PSYC
PHYS

Mathematics

MATH

International Perspectives: 3 hours

International perspectives courses develop insight into globalization effects and the influence of a worldwide, multicultural society. Students must take one international perspectives course. An approved study abroad experience will satisfy this requirement. The course may be selected from the discipline defined by the student's major(s).

Cultural Diversity: 3 hours

Cultural diversity courses provide insight and analysis of and sensitivity to race/ethnicity and gender issues within the United States. Students must take one upper division (3000- or 4000-number) cultural diversity course. The course may be selected from the discipline defined by the student's major(s).

CU Denver Core Curriculum**11 Courses****34-38 Hours****Approved CU Denver Core Curriculum Courses**

The following table shows the courses that have been approved by the CU Denver Core Curriculum Oversight Committee for inclusion in the Core Curriculum:

See Core Curriculum Table:

<http://catalog.ucdenver.edu/content.php?catoid=10&navoid=1349#>

See Core courses and their catalog descriptions:

http://catalog.ucdenver.edu/preview_program.php?catoid=10&poid=2101&print

gtPathways Courses

The Colorado Department of Higher Education oversees the Guaranteed Transfer (gtPathways) program, which provides for guaranteed transfer, and more importantly, guaranteed application of credit toward lower division general education credit between Colorado public institutions of higher education. All gtPathways approved courses undergo statewide faculty review, and all lower division CU Denver Core courses are gtPathways approved.

See Core courses for their gtPathways content area:

http://catalog.ucdenver.edu/preview_program.php?catoid=10&poid=2101&print

Information for Graduate Students

Welcome to the Graduate School on the Denver Campus. Almost half of our students on the Denver Campus are enrolled in graduate programs. We have a higher ratio of graduate to undergraduate students than most other universities in the country. This special emphasis on graduate education provides a strong culture of graduate studies on the campus and has engendered a number of innovative programs and teaching methods, such as dual master's degrees or classes that are entirely online. Graduate programs on the Denver Campus also benefit from CU Denver's immediate proximity to the city, which provides rich opportunities for internships and employment, collaborations between the university and the city and a wealth of real world problems that can test and elaborate ideas gained in the classroom.

A list of all graduate programs is available in the [Academic Programs section](#) of the CU Denver website.

The Denver Campus Graduate School offers 31 master's programs and 11 PhD programs. In addition, schools and colleges offer other master's programs that are independently accredited and are not housed in the Graduate School. For students in those programs, most of your needs will be met by the department in which your program resides. Information about these graduate programs is available under the specific school or college in this catalog. However some programs, those having a diamond designation ("Graduate School Rules apply to the program"), are programs within the Graduate School and follow the rules outlined in this section.

The colleges and schools offering graduate opportunities on the Denver Campus include:

- College of Architecture and Planning
- College of Arts & Media
- Business School
- School of Education & Human Development
- College of Engineering and Applied Science
- College of Liberal Arts and Sciences
- School of Public Affairs

Individual graduate programs are described within the school/college sections of the catalog.

Graduate School

Dean: Barry D. Shur, PhD

Graduate Coordinator: Jessica Halliday

Online Applications Manager: Krystal Allen

Online Applications Specialist: Marissa Tornatore

Administrative Assistant: Masooma Baig

Office: 1380 Lawrence Street, Suite 1251

Telephone: 303-315-2183

Fax: 303-315-5829

Mailing Address: P.O. Box 173364, Campus Box 163, Denver, CO 80217

Website: <http://www.ucdenver.edu/academics/colleges/Graduate-School/Pages/default.aspx>

Graduate education is a central component of the mission of the University of Colorado Denver. The Graduate School is one of several schools within CU Denver, and its mission is to facilitate and enhance the educational experiences and opportunities for all graduate students and to encourage excellence in research, creative and scholarly work.

In accordance with this mission, the Graduate School leadership, together with the graduate faculty, plans, develops, approves, evaluates and administers graduate programs (PhD and master's degree programs) and certificate programs. The Graduate School also ensures that graduate programs comply with, or exceed, the Graduate School's standards of excellence and execute sound academic administration as established by the [Rules and Policies of the Graduate School](#) and adopted by the University Board of Regents and the Colorado Commission on Higher Education. In particular, the Graduate School is charged with maintaining high standards and quality of both the graduate programs and the graduate faculty. Other functions of the Graduate School include:

- a) Developing and fostering multidisciplinary, interdisciplinary and innovative programs and promoting collaborations that create unique opportunities for student learning, research and discovery;
- b) Formulating and maintaining uniform standards for academic excellence in graduate-level courses and research experiences offered for credit;
- c) Promoting a supportive environment for the graduate student community;

- d) Providing a voice for graduate education in the University's strategic planning; and
- e) Publishing a current Graduate School Student Handbook on the Graduate School website.

See [Graduate School Rules 11-12](#).

Requirements for Admission

Note that the following are minimum requirements. College and school regulations, if more stringent, take precedence over the minimum guidelines as set forth by the Graduate School.

Regular Degree Students

Students are admitted by the Graduate School as regular degree students provided they meet the following criteria:

- Hold a baccalaureate or master's degree from an accredited college or university or demonstrate completion of work equivalent to the baccalaureate or master's degree given at CU Denver. Applicants whose credentials include studies or course work at an institution outside the United States must include a validated English translation and an evaluation of the transcript by a professional accrediting service (such as World Education Services).
- Usually have an undergraduate grade point average of 3.00 or better (A is equal to 4.0) and/or a 3.00 or better GPA in a completed or partially completed (at least 1/3) master's degree program. Applications from individuals who attended a college or university that does not issue grades or a GPA will be evaluated by the Graduate School on a case-by-case basis.
- Have adequate preparation to enter graduate study in the chosen program as demonstrated by their performance in the GRE or an appropriate substitute (i.e., MCAT, an earned MS/MA or PhD from a school in the United States, or completion of at least 12 credit hours of transferable graduate-level course work from an accredited US college or university). Although the Graduate School recommends that applicants take the GRE or other standardized test, it is not a requirement for admission as a regular degree student if one of the other two indicators of preparedness is present. Some graduate programs, however, may require that all applicants take the GRE or an equivalent.
- Meet any additional requirements (such as particular undergraduate course work) for admission as established by the program.
-

International students must meet ALL of these requirements and also must provide:

- Documentation in English (or a certified English translation) of the completion of a bachelor's degree, master's degree or the equivalent at the time of matriculation as evaluated by the [International Admissions](#) Office.
- Applicants whose native language is not English must take either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) exam, and must score above 537 (paper) or 203 (computer) or 75 (Internet based) on the TOEFL or 6.5 on the IELTS. Schools, colleges or individual graduate programs may require higher standards on these tests.

- Applicants whose native language is not English are not required to take the TOEFL test if they have completed a baccalaureate or graduate-level degree program at an English-speaking college or university, or have completed at least 30 semester hours at a college or university in the United States and obtained a *B* average (3.0 GPA) or higher.
- Financial and other documents required by the [International Scholars and Students Office](#) to process immigration documents.
- A certified English translation of all records and references not in English.
-

Additional requirements and documentation may also be required.

Provisional Degree Students

A graduate program that wishes to admit an applicant who does not meet the criteria for admission as a regular degree student can petition the Graduate School to admit the applicant as either a regular or provisional degree student. The petition must include a letter from the graduate program director to the dean that outlines the rationale to support such an admission. If the student is to be admitted as a provisional student, then the petition must include a description of the conditions that the student must meet in order to become a regular degree student. The admission of the applicant as a provisional degree student requires the approval of the dean.

Based on the requirements of the graduate program and the recommendations of the graduate program director, the dean will determine and advise the program director and the student of the conditions that the student must satisfy to be transferred from provisional to regular status. The dean, in consultation with the program director, will also determine the time period (one or two semesters for full-time students and a maximum of four semesters for part-time students) in which these conditions are met.

Provisional students are subject to the same standards of performance required of regular degree students, plus any other requirements imposed by program faculty as conditions of admission. At the end of the specified probationary period, the dean, in consultation with the program director, will review the performance of the provisional student. The student must either have satisfied the requirements for conversion and be admitted to regular degree status or be dismissed from the graduate program to which they were provisionally admitted. The Graduate School will notify both the program director and the student whether the provisional student has satisfied the requirements and that their status has been converted to that of a regular student, or has failed to meet the requirements and has been dismissed.

Application Procedures

Applicants seeking admission to CU Denver's graduate programs should apply online at:

https://soa.prod.cu.edu/degreeprog/applyDEGREEPROG_CUDEN/login.action

rather than to the department or the Office of Admissions. Refer to department/program sections in this catalog for more information regarding specific application instructions and requirements. Online applications are submitted electronically to the department processing your application. Most supplementary application materials will be uploaded in the online

application, but items such as transcripts should be mailed to the address listed in the online application. International applicants, except those to the Business School and the College of Liberal Arts and Sciences, should mail supplementary materials to the [Office of International Affairs](#). Applicants to the Business School should forward their materials directly to the Business School, and those applying to programs in the College of Liberal Arts and Sciences should forward their materials to the Graduate School (which processes their admissions applications). International applicants should refer to the [Information for International Students](#) chapter for more information regarding specific application instructions and requirements.

Be sure to clearly mark the supplementary materials with your full name, social security number, the department to which you are applying and contents of the supplementary material. In addition, sufficient postage must be included if the materials are to be returned to the applicant. If applying to more than one department, you must submit a complete application and separate fee to each department. Students will receive offers of admission or rejection from the graduate department to which they are applying.

An applicant for admission must present:

- Submitted online application
- Two official transcripts for all academic work in colleges and universities completed to date.
- Three letters of reference. The online application will automatically send recommendation forms to the recommenders indicated on the application. Electronic recommendation letters are submitted to the department processing your application. If recommenders prefer to send letters in the mail, then provide the address listed in the online application or obtain the address for the specific department to which you are applying.
- A nonrefundable application fee of \$50 for domestic students or \$75 for international students. *No application will be processed until this fee is paid.*
- Any other material required specifically by the program faculty. This may include scores from the GRE or other examination. Check with program coordinators in the departments for additional information that may be required.
-

Remember, you must check with the program for the deadline for submitting the application and application fee amount for the program of interest.

When a prospective degree student applies for admission, the chairperson or a student admissions committee of the department will decide whether the applicant shall be admitted and make that decision known to the Office of Admissions.

Students who wish to apply for a graduate student award (e.g., fellowship, scholarship, assistantship) should contact their department before the application deadline for information, since deadlines are usually earlier for aid requests than for admission.

Readmission/Changing Programs

Former and current students who wish to be re-admitted or change from one degree program to another must meet the requirements of the new degree program and provide all items required

of students applying to the Graduate School on the Denver Campus for the first time. These applicants, however, may petition the program to which they were initially admitted to secure a release of transcripts and letters of recommendation supplied at the time of their initial application.

Transferring

Students transferring from another University of Colorado campus to the Denver Campus must apply and be accepted by the program on this campus.

A student who has completed a master's program at CU Denver must resubmit an online graduate application for acceptance into the doctoral program.

Nondegree Students

A student who wishes to take graduate courses, but is not interested in earning a specific advanced degree, may apply as a nondegree student at:

https://soa.prod.cu.edu/degreeprog/applyDEGREEPROG_CUDEN/login.action

Contact the Office of Admissions at 303-556-2704 for further information. Nondegree students will be allowed to register only on the campus to which they have been admitted.

Nondegree students who later desire to pursue a graduate degree program at this university are encouraged to submit the complete online graduate application and supporting credentials as soon as possible. Credits earned as a nondegree student at the University of Colorado may, at the discretion of the department to which the student is admitted, be transferred in to a degree program. The maximum amount of credits allowed for transfer is 12 semester hours or 40 percent of the number of credits required for the master's degree (whichever is higher), and 30 hours for PhD degrees. These limit totals include both nondegree CU credits and those transferred from other institutions. Note that the GPA for courses taken as a nondegree student is calculated separately and is not incorporated in the official graduate GPA.

New Student Orientation

An orientation program for new students is held at the beginning of the fall semester, during the week prior to the first day of classes. The orientation program provides information to new students about activities and services available on the Denver Campus. Information on the expectations, opportunities, registration process, parking and securing ID cards is also provided. Academic advising sessions are held before registration for the term. Students should contact their schools and colleges for additional information on advising, as well as special orientation sessions that may be scheduled for their programs.

Registration

On the regular registration days of each semester, students who have been admitted to a graduate program are required to follow appropriate registration procedures.

Students should register for classes the semester they are accepted as graduate students. If unable to attend that semester, they must notify the Office of Admissions in addition to the department that has accepted them. If this is not done, the student is automatically classified as

inactive in the program and will need to reapply for admission to be able to register in a later semester.

Withdrawal

A graduate student who desires to withdraw from the university must apply to the dean of his/her school or college for permission to withdraw in good standing. *A student who discontinues attendance in a course without official withdrawal will be marked as having failed the course. After the 10th week of the class, the student must have the associate dean's signature to drop a course.*

Assistantships and Fellowships

Graduate Student Teaching Appointments

Many departments employ graduate students as part-time instructors or teaching assistants. The instructorship is reserved for those advanced graduate students already possessing appropriate degrees who may be independently responsible for the conduct of a section or course. Contact the department for further information.

Research Assistantships

Research activities provide opportunities for graduate students to obtain part-time work as research assistants in many departments. Such assistantships are funded by external grants obtained by faculty members. Contact the department for further information.

Additional information about registration and financial aid are available in separate sections of this catalog. For information about tuition and fees, please visit the Bursar's office [website](#).

Requirements for Advanced Degrees

Graduate Student Handbooks

Each graduate program is expected to provide students with a handbook—electronic, paper or both—indicating in some detail the curricular requirements, the expectations for satisfactory progress toward the degree completion, a timeline for the steps needed to meet these expectations and other features unique to each program (such as the composition and formation of thesis, project and dissertation committees to guide and review the student's progress).

GPA Requirements and Quality of Graduate Work

A student is expected to maintain a minimum overall 3.0 GPA in all work attempted while enrolled in a graduate program and to make satisfactory progress toward a degree in other respects, as determined by his or her department.

For all graduate degrees, a grade below *B-* is unsatisfactory and will not be counted toward the minimum requirements for these degrees. Courses required by the degree-granting program in

which the student receives a grade below *B-* must be retaken in order to achieve a *B-* or better grade.

Credit by Transfer

A limited amount of high-quality resident graduate work done in a recognized graduate school elsewhere, or as a nondegree student at a University of Colorado campus, within the time allowed may be accepted, provided it is recommended by the department concerned and approved by the school or college dean. The maximum amount of work that may be transferred to this university is 12 semester hours or 40 percent of the number of credits required for the master's degree (whichever is higher), and 30 hours for PhD degrees.

Courses taken as pass/fail or satisfactory/unsatisfactory will not be transferred. In addition, a grade of *B-* or above must be earned for a course to be transferred (individual programs may require a *B* or better for transfer credit and/or may require a *B* or better in the core classes of the particular discipline). Courses taken some time ago will need to be validated by the program director.

Use of English

A student who is noticeably deficient in the use of standard English in all oral and written work may not obtain an advanced degree from the University of Colorado. Ability to use the language with precision and distinction should be cultivated as an attainment of major importance.

The university reserves the right to test English proficiency for nonnative speakers of English to confirm and validate sufficiency for credit-bearing course work and degree programs.

Each department will judge the qualifications of its advanced students in the use of English. Reports, examinations and speech will be considered in estimating the candidate's proficiency.

Graduate Appeals

If a school, college or graduate program has established its own procedures to consider academic grievances, then the student must follow these procedures before they can submit a grievance to the Graduate School. Only when a student has pursued all avenues for appeal within their school, college or program may they file a grievance with the Graduate School.

Grievance appeals cover problems related to academic issues, and are separate from issues regarding academic ethics and disciplinary cases (which are covered by separate procedures). Graduate students may appeal such issues as: faculty, program, departmental, college or school (including Graduate School) policies affecting individual student prerogatives, deviations from stated grading procedures (excluding individual grade challenges), unfair treatment and related issues. Please refer to Graduate School procedures for academic grievance as published in a separate policy document on the [website](#).

Master's Degree

A student regularly admitted to a graduate program and later accepted as a candidate for the master of arts, master of science or other master's degrees will be recommended for the degree only after certain requirements have been met.

The requirements stated below are minimum requirements; additional conditions may be set by the individual programs.

Students planning to graduate should ascertain current deadlines with their graduate programs. It is the graduate student's and the department's responsibility to see that all requirements and deadlines are met (e.g., changing of *I* and *IP* grades, notification of final examinations, etc.).

Departments or program committees may have deadlines that must be met by the graduate students in that specific department or program. It is the student's responsibility to ascertain and meet these requirements.

Minimum Requirements

The minimum requirement is 30 (semester) credits. While it is expected that most of this course work will be at the graduate (5000 and above) level, some graduate programs may allow particular undergraduate courses that are outside the discipline of their program to count toward the graduate degree. The proportion of undergraduate credit hours cannot exceed 20% of the course requirements of the graduate program and must be approved by the program director on a case-by-case basis. Undergraduate courses within the same discipline as the graduate program cannot be credited toward a graduate degree. If the program has a thesis option, the thesis must count for 3-6 credits. Independent study course work cannot exceed 25 percent (7.5 credits) of the 30 credits of course work required for the master's degree.

Master's Thesis Credit

Master's students who are enrolled in a program or track that requires a thesis, must also register for a minimum of three and a maximum of six hours of thesis work (some colleges and schools have a four-hour minimum for thesis tracks). Once all required semester hours of thesis work have been taken and all other course work is completed, students may choose to register for Candidate for Degree (CAND 5940) for the semester in which they will defend their thesis. CAND 5940 carries no credit or grade, but students pay for one credit of resident tuition and minimal fees.

Thesis Requirements

Students who are enrolled in a program that requires a thesis must undertake their thesis work under the supervision of a thesis advisor and a faculty advisory committee. All research conducted for a master's degree must meet all appropriate regulatory standards specified by federal, state and local agencies regarding ethical research, animal use, human subjects, HIPAA and environmental safety. Each thesis is presented in partial fulfillment of the requirements for the master's degree and must meet the formatting criteria outlined in the [UC Denver Electronic](#)

[Thesis and Dissertation guidelines](#). The Graduate School performs format review and approval for all theses prior to electronic submission. Theses must be successfully defended before the student's committee before final submission. Thesis fees are paid upon submission online.

A grade of In Progress (*IP*) will be assigned for thesis hours in all semesters until the final approved thesis is submitted to the Graduate School office. The thesis advisor determines the final thesis grade, and then submits Change of Record forms to the Graduate School office to change all *IP* grades to this final grade.

Admission to Candidacy

Students who wish to receive the master's degree must first become candidates. After completing or registering for all program-required course work, students must apply for graduation in their student portal and submit the signed Application for Admission to Candidacy to the student's respective school or college or to the Graduate School, by the graduation deadline posted for the semester in which they plan to graduate. The candidacy form is available online on the Graduate School website or from your program advisor.

An approved form certifies that a student's work is satisfactory and that the program curriculum entered on the candidacy form meets all of the requirements of both the Graduate School as well as the particular graduate program, and that the student is a candidate for the degree. Students must have a minimum GPA of 3.00 to apply for candidacy.

Master's Degree Final Examination / Thesis Defense

All candidates for the master's degree are required to take a final comprehensive examination, present a cumulative professional portfolio or successfully defend a project or thesis. The final examination or defense is conducted by a committee consisting of at least three members of the graduate faculty. The student's final examination/defense committee and the examination schedule must be approved by the program director. The Request for Graduate Examination form must be submitted to the student's respective school or college, or to the Graduate School, one week prior to the final exam/defense.

The examination or defense may be oral, written or both, or may consist of an evaluation of the cumulative professional portfolio. The chairperson and student must be present for the oral examination or defense, but a minority of members of the committee may participate by interactive video. If *one* faculty member cannot be present due to an *emergency*, the exam can proceed with the faculty who can attend, and the student will schedule a separate meeting with the absent faculty member at an alternate time. A majority of the examination committee members must vote for one of the following examination outcomes: Pass, Conditional Pass or Fail. The original signed form is sent to the student's respective school or college, or to the Graduate School.

For a Conditional Pass, the examining committee will clearly define the requirements for the student to receive an unconditional passing grade; these requirements must be completed to the satisfaction of the examination committee within four months. Failure to satisfy these conditions will result in failure of the examination. A student who fails the examination is

subject to immediate dismissal from the program on the recommendation of the graduate program and concurrence of the dean.

At the program's discretion, a student who fails the examination may be allowed to retake the exam. The retake must be completed by the end of the next academic semester. Both the original signed examination form noting the failure as well as the signed new exam form for the retake must be filed with the school, college or Graduate School office.

Time Limit

Master's students, whether enrolled full time or part time, have five (5) years from the start of course work to complete all degree requirements, including the filing of the thesis with the Graduate School if the program requires a thesis. Students who fail to complete the degree in this five-year period are subject to termination from the Graduate School upon the recommendation of the program director and concurrence of the Graduate School dean. For a student to continue beyond the time limit, the program director must petition the dean for an extension and include: 1) reasons why the program faculty believe the student should be allowed to continue in the program, and 2) an anticipated timeline for completion of the degree.

Doctor of Philosophy

The doctor of philosophy (PhD) degree is the highest academic degree conferred by the university. To state the requirements for the degree in terms of semester hours would be misleading, because the degree is not conferred merely upon the satisfactory completion of a course of study, however faithfully pursued.

Students who receive this degree must demonstrate that they are proficient in some broad subject of learning and that they can critically evaluate work in this field. Furthermore, they must have shown the ability to work independently in their chosen field and must have made an original contribution of significance to the advancement of knowledge. The technical requirements stated below are minimal requirements for all candidates for the degree; additional conditions set by the departments or schools will be found in the announcements. Any department may make additional regulations consistent with these general rules.

Minimum Course Dissertation Requirements

After completing all course work required by their doctoral program, PhD students must register for a total of at least 30 semester credit hours of dissertation (excluding students in the clinical health psychology doctoral program) to complete the requirements for the PhD degree. In the School of Education and Human Development, this includes 12 hours of doctoral research labs. PhD students must register for a minimum of 5 hours (and a maximum of 10 hours) of dissertation credit in each fall and spring semester following successful completion of the comprehensive examination.

Once a student has completed 30 dissertation credits, they need to enroll for only one credit in each fall and spring semester until a successful defense of their dissertation. If defending in the

summer semester, they must also register for one dissertation credit. Required registration for the defense may also be done through Candidate for Degree (CAND 5940) in the last semester.

Students who receive a stipend may have to continue to register for 5 credit hours to ensure their status as full-time students and ensure that retirement contributions are not withheld from their stipend. International students who register for only one credit in a semester, and who need to maintain their status on an F-1 or J-1 visa, may need to have their academic advisor complete a “Less Than Full-Time Enrollment” form.

A grade of In Progress (*IP*) will be assigned in all semesters until the final approved dissertation is submitted to the Graduate School office. The dissertation advisor determines the final dissertation grade, and then submits Change of Record forms to the Graduate School office to change all *IP* grades to this final grade.

Continuous Registration Requirements for Doctoral Candidates

A student (who is not on a leave of absence) who fails to register continuously in a given academic year (fall and spring semesters) for dissertation credit hours after passing the comprehensive examination may, at the discretion of the program director, be required to retake and pass the examination in order to regain status as a student in “good standing.”

Students who are unable to register for the minimum dissertation credits because of extenuating personal circumstances should apply for a leave of absence as explained below.

LEAVE OF ABSENCE

An approved leave of absence does not automatically extend the time limit for earning a degree, but may be cited as supporting documentation to request an extension if needed. Leaves of absence that exceed one year will not be approved unless the program director provides the dean with a compelling justification why such action should be approved. Students who are absent for longer than one year will be considered to have withdrawn from the program and will be required to reapply for admission and be considered with all other applicants.

OFF-CAMPUS STATUS FOR PhD STUDENTS

If, in the course of his/her dissertation research, a student plans to perform their dissertation work or study out-of-state and will not be utilizing campus facilities or faculty time, s/he may request off-campus status for purposes of registering for three units of thesis credit. Written requests must be received in the Graduate School office at least one week before the semester begins. The request must be co-signed by the program director prior to submission for approval to the Graduate School. Off-campus status cannot be extended to the (last) term in which the final examination is to be taken (during which the student must register for at least five hours of dissertation research), unless the student has already registered for 30 dissertation credits.

Doctoral Examinations

Each PhD program will require at least comprehensive and final examinations. Notice of all examinations must be filed with the dean of the Graduate School at least two weeks prior to administration.

PRELIMINARY EXAMINATION

Each program is responsible for ensuring that students are qualified for doctoral study by successfully passing a preliminary examination. Graduate programs that require students to have a master's degree before they enter their PhD program may exempt the student from taking a preliminary exam. The preliminary exam must occur within three semesters of completing the required courses as defined by the particular graduate program. The content and format of the preliminary examination are determined by the individual graduate program. The results (Pass/Fail) of the preliminary examination must be reported to the Graduate School. A student who fails the examination is subject to immediate dismissal from the Graduate School upon the recommendation of the program and concurrence of the dean; however, the preliminary exam may be retaken at the program's discretion.

COMPREHENSIVE EXAMINATION

After completing or registering for all required program course work, and concurrent with applying for admission to candidacy for the PhD, students must take a comprehensive examination in their respective discipline. This exam will test a student's mastery of a broad field of knowledge, not merely the formal course work that s/he has completed. The oral part of the comprehensive exam is open to all members of the graduate faculty. This examination must be completed no later than the end of the third year for full-time students (fourth year for students enrolled in the PhD programs in applied mathematics and computer science and information systems). Individual programs may establish an earlier deadline.

The student's comprehensive examination committee and the examination schedule must be approved by the program director. The Request for Graduate Examination form must be submitted to the Graduate School at least two weeks before the exam. The examination committee consists of a minimum of three graduate faculty members; the chair of the committee must be a member of the degree-granting program. The student's dissertation advisor, if already identified, may *not* chair the examination committee. All members of the committee must be present for the examination, although a minority of members, but not the chairperson or the student, may participate by interactive video. If *one* faculty member cannot be present due to an *emergency*, the exam may proceed with the faculty who can attend, and the student will schedule a separate meeting with the absent faculty member at an alternate time. The student must receive votes from the majority of the examination committee for one of the following outcomes: Pass, Conditional Pass or Fail. The examination form must be signed by the committee and returned to the Graduate School office.

If a student receives a Conditional Pass, the examining committee will clearly define the requirements for the student to receive an unconditional passing grade, and these requirements must be completed to the satisfaction of the examination committee within four months. The committee chair is responsible for monitoring the conditions and reporting their outcome to the Graduate School. Failure to satisfy these conditions will result in failure of the examination.

A student who fails the comprehensive examination is subject to immediate dismissal from the Graduate School upon the recommendation of the program and concurrence of the dean; however, the preliminary exam may be retaken at the program's discretion. The retake will be in the form designated by the committee and must be completed within twelve months. The original examination form noting the failure is signed by the committee and returned to the Graduate School office. New examination forms will be generated when the examination is rescheduled. Students will be required to meet registration requirements and be registered during the term in which the repeated exam is taken.

FINAL EXAMINATION/DEFENSE

After the dissertation has been completed, a final examination on the dissertation and related topics is conducted in two parts, an oral presentation of the dissertation research that is open to the public, and a closed examination conducted by the examining committee.

The program director will approve the student's final examination/defense committee and the examination schedule. The Request for Graduate Examination and PhD Announcement forms must be submitted to the Graduate School at least two weeks before the exam. Announcements of the examination are also posted and sent by the programs to appropriate faculty members. The Graduate School office will send the final examination signature form to the program office to be placed in the student's file for use at the exam.

The dissertation defense committee consists of a minimum of four graduate faculty members. The chair of the committee must be a member of the degree-granting program. The student's dissertation advisor may not chair the examination committee. The student must submit finalized draft copies of the thesis to the defense committee at least two weeks before the examination date; some programs may require an earlier deadline.

All members of the committee must be present for the examination although a minority of members, but not the chairperson or the student, may participate by interactive video. If *one* faculty member cannot be present due to an *emergency*, the exam may proceed with the faculty who can attend, and the student will schedule a separate meeting with the absent faculty member at an alternate time. The examination form must be signed by the committee and returned to the Graduate School office. The student must receive votes from a strict majority of the examination committee for one of the following outcomes: Pass, Conditional Pass or Fail.

If a student receives a Conditional Pass, the examining committee will clearly define the requirements for the student to receive an unconditional passing grade, and these requirements must be completed to the satisfaction of the examination committee within 60 days of the defense. Under extenuating circumstances, the graduate program director may petition the Graduate School for additional time. If a student fails the examination, s/he may not continue in the program.

Dissertation Requirements

A dissertation based upon original investigation and showing mature scholarship and critical judgment, as well as familiarity with the tools and methods of research, must be written on a subject approved by the student's dissertation advisor and the dissertation advisory committee.

All research conducted for the PhD degree must meet all regulatory standards specified by federal, state and local agencies regarding ethical research, animal use, human subjects, HIPAA and environmental safety.

After selecting a dissertation advisor, the student, in collaboration with his/her dissertation advisor, will choose a dissertation advisory committee, subject to approval of the graduate program director. Although it is recommended that the dissertation advisory committee be the same as the dissertation examination committee, the two committees need not be identical. The dissertation advisory committee will serve an advisory function to the student and dissertation advisor, and will also monitor the student's progress toward completing the dissertation. The dissertation advisory committee will determine when the student has made sufficient progress to begin writing his/her dissertation. The dissertation advisory committee will meet at least once each year, but individual programs may require – and the Graduate School encourages – a greater frequency of meetings. Written records of the meetings and of the student's progress will be kept in the student's file in the graduate program office, and notice that a student is not in compliance with this rule will be sent by the program to the Graduate School office three weeks before the end of the fall academic term. Students who have not had a dissertation advisory committee meeting in the preceding 12 months will not be permitted to register for subsequent semesters. Once the student is in compliance with this rule, s/he will be permitted to register.

The student's dissertation must meet the formatting criteria outlined in the [UC Denver Electronic Thesis and Dissertation guidelines](#). The Graduate School performs format review and approval for all dissertations prior to electronic submission. The formally approved dissertation must be submitted electronically, with the appropriate supporting documentation, within 60 days of the successful dissertation defense. Dissertation fees are paid upon submission online.

Time Limit

Doctoral students, whether enrolled full time or part time, must complete all degree requirements within eight years of matriculation. Students who fail to complete the degree in this eight-year period are subject to termination from the Graduate School upon the recommendation of the program director and concurrence of the Graduate School dean. For a student to continue beyond the time limit, the program director must petition the dean for an extension and include: 1) reasons why the program faculty believes the student should be allowed to continue in the program and 2) an anticipated timeline for completion of the degree. Approved leaves of absence do not automatically extend the time limits for earning a degree, but they may be used as a reason to request an extension if needed.

Graduate Faculty

The graduate programs at the Denver Campus Graduate School are delivered by faculty who are especially qualified by education and experience for graduate teaching and scholarship.

The university and college/school qualifications are published in the "Graduate Faculty" section of the [Graduate School Rules](#). These rules distinguish between regular faculty, who are typically full-time members of the CU Denver faculty, and special faculty who may not be full-time, but

who have special skills that enhance a college/school's graduate course offerings. Faculty who meet these qualifications are admitted to membership in the graduate faculty of CU Denver. These are the only faculty members permitted to teach graduate courses or to serve on thesis, dissertation or graduate student committees at either campus of CU Denver.

Research Opportunities

CU Denver is strongly committed to discovering new knowledge and novel creative expressions through the research and creative efforts of its faculty. Such activities not only advance knowledge and enhance the quality of life, but strengthen teaching by grounding instruction in scholarship and professional practice. These activities constitute an important component of CU Denver's service to the community at large. Externally funded projects are a major priority at the Denver Campus.

Research projects, training and public service programs encompass both traditional and nontraditional fields of study, focusing on issues important at all levels—city, state, national and international. The benefits to the campus are substantial, since externally-funded activities:

- assist in sustaining scholarly discourse and creative work;
- enable faculty members to engage in the advancement of knowledge;
- provide the foundation for solving pressing practical problems of vital concern to society; and
- enhance the educational opportunities of students both at undergraduate and graduate levels.

In addition, a great deal of research at the university is conducted without substantial external support. This research also yields important insights that are conveyed to a national audience through faculty publications, presentations, exhibits, performances and professional activities. Many members of the faculty are leaders within the national scholarly community. All these pursuits bring recognition to the university, establish the credibility of its faculty and enhance the value of the degree it confers.

The active engagement of graduate students in these scholarly and creative activities is the centerpiece of a vibrant program in graduate education. The mentorship of graduate students by the graduate faculty is a major objective of the educational process. In addition, the consolidation of the Denver Campus with the Anschutz Medical Campus is opening new opportunities for collaborative, interdisciplinary work.

Information for International Students

The University of Colorado Denver provides a variety of international programs and educational opportunities and services for international and domestic students, scholars, faculty, staff and the greater Denver community. The goals of the Office of International Affairs are to raise international awareness on the campus, to provide opportunities for students to gain global competency needed in today's interdependent world and to create a campus community that is welcoming to international students and scholars.

See [CU Denver Quick Facts for International Students](#)

International Admissions

Director: George F. Kacenga

Telephone: +1-303-315-2384

Fax: +1-303-315-2389

Website: international.ucdenver.edu/admissions

The Department of International Admissions at the University of Colorado Denver assists all international students with the international application process. The analysis of foreign academic credentials and the evaluation of international grading scales are conducted internally. At the request of academic departments, International Admissions also evaluates course work completed at foreign institutions by domestic applicants.

International Admissions representatives recruit overseas to attract qualified international students to CU Denver. The department also advises staff and faculty traveling overseas on possible networking with prospective international students, visiting Fulbright offices and foreign universities with CU Denver brochures and information.

Please be advised that all the documents submitted along with the application become the property of the university and will NOT be returned to the applicant.

International Admissions Application Deadlines

Undergraduate

<i>Term</i>	<i>Preferred Deadline</i>	<i>Final Deadline</i>
Summer	January 15	March 15
Fall	March 15	May 15
Spring	September 15	October 15

Graduate

Students interested in applying for a master's or doctoral program should visit the Graduate section of internationaladmissions.ucdenver.edu for more information. Application requirements will vary by program. Please contact the academic department for full details.

English Language Requirement

Students who complete the ESL Academy at the University of Colorado Denver are not required to submit results from a standardized test of English language proficiency. Both Test of English

as a Foreign Language (TOEFL) scores and the International English Language Testing System (IELTS) scores are accepted at CU Denver as proof of English language proficiency.

The CU Denver institutional code for TOEFL is 4875. Test information and registration materials for TOEFL may be obtained from the Ministry of Education, American Culture Center or educational institutions in the applicant's country. Information may also be obtained directly from:

Educational Testing Services
P.O. Box 6151
Princeton, NJ 08541-6151 USA
+1-877-863-3546
Website: www.toefl.org
E-mail: toefl@ets.org

To receive test information and registration materials for IELTS please visit www.ielts.org.

Live-In Residence Requirement

The CU Denver requires that all first-time international undergraduate students live in the Campus Village at Auraria apartments. Additional information about the facilities, policies and programming at Campus Village are available in the [Campus Life](#) section of this catalog.

Exemptions to the campus residency policy will be evaluated and made on a case-by-case basis. Exemption forms are available through the Office of Student Life, Tivoli room 303, or online. It is not mandatory for international graduate students to live on campus. For further information, please contact the Office of Student Life at 303-556-3399 or email at housing@ucdenver.edu.

On-Campus Employment

F-1 and J-1 students who maintain a minimum GPA, are enrolled full-time, and are otherwise in legal immigration status may work on-campus up to 20 hours per week during normal enrollment periods and more than 20 hours per week during official school breaks (provided they are eligible and intend to enroll the following semester). F-1 students do not require any special authorization prior to commencing employment. J-1 students, however, must receive written authorization from a responsible officer/alternate responsible officer in International Student and Scholar Services prior to commencing on-campus employment.

Student Life

Office: Tivoli Student Union, 303

Telephone: 303-556-3399

Website: www.ucdenver.edu/life/services/studentlife/resources/Pages/Tivoli-Student-Union.aspx

It is the mission of the Office of Student Life to complement the academic program of studies at CU Denver and enhance the overall educational experience of students through the development of, exposure to and participation in social, cultural, intellectual, recreational, leadership and

governance programs. The Office of Student Life is the advising, coordinating, resource and general information center for student organizations, student government, student programs and the academic honor societies. The office is responsible for the administration of the student fee budget and monitors all student fee expenditures to assure compliance with CU Denver and state of Colorado regulations and procedures. The director of student life represents the assistant vice chancellor for university life on selected CU Denver, tri-institutional and Auraria committees and maintains effective lines of communication with Metropolitan State College of Denver, Community College of Denver and Auraria Higher Education Center.

Health Insurance

Office: Tivoli Student Union, 303

Telephone: 303-556-6273

All F-1 and J-1 students enrolled at the Denver Campus are required to have health insurance. Students are automatically enrolled in the policy when they register for classes. J-2 dependents are encouraged to enroll in the policy but are eligible to submit comparable insurance coverage with another company in order to meet the Department of State insurance requirement. The insurance office welcomes F-2 dependents as well as other international students in other visa categories to enroll in the policy because the cost of health care in the USA is expensive. For further information about the mandatory policy or information about the waiver process, please contact the Student Health Insurance Office at 303-556-6273.

Expenses

The estimated tuition and living expenses for international students, which include room, board, books and insurance, can be generated using the financial sponsorship calculator at:

www.ucdenver.edu/academics/InternationalPrograms/OIA/ISSS/InternationalStudents/calculator/Pages/default.aspx.

Health Professions

Undergraduate Health Careers Advisors

(Denver Campus)
Charles Ferguson
303-556-4350
or
Kent Nofsinger
303-556-6218

Not sure what health specialty to enter?
Visit the Health Careers website for information:
clas.ucdenver.edu/healthcareers/

Graduate Advisors

See contact information under each school or college in this chapter.

Denise Leberer,
CLAS Advising
303-556-2868

Pre-nursing, pre-pharmacy and
dental hygiene advising

Unlike most chapters in this catalog that focus on all programs for a particular school, this chapter provides information about programs within the schools and colleges that prepare students for a career in the health professions. On the Denver Campus, two colleges offer health-related undergraduate programs. Students who complete their prerequisites or undergraduate degrees on this campus may choose to apply to graduate and health professional programs on the Anschutz Medical Campus. Three schools on the Denver Campus offer health-related graduate programs. Denver Campus students may choose to stay and complete a master's or PhD degree on this campus or apply to programs on the Anschutz Medical Campus. The new state-of-the-art clinical and research facilities on the Anschutz Medical Campus offer students unparalleled training in the health professions. Admission to these programs is very selective, and admission to the Denver Campus does not assure admission to Anschutz Medical Campus programs. All programs on the Anschutz Medical Campus require incoming students to have either a bachelor's degree or minimum of 60 semester hours of undergraduate work completed before applying.

Undergraduate Programs on the Denver Campus

Two colleges on the Denver Campus offer health-related programs for undergraduate students seeking careers in the health sciences. *Admission to the Denver Campus, however, does not assure admission to any professional health career program.* Admission to those programs is a separate, competitive process open to qualified applicants from any accredited college or university.

College of Liberal Arts and Sciences

Department of Biology

Contact: Kimberly F. Regier

Telephone: 303-556-8309

E-mail: Kimberly.Regier@ucdenver.edu

Website: clas.ucdenver.edu/biology/

To serve the needs of students who wish to obtain recognition for the acquisition of specialized skills in biology and to better prepare students for graduate school, health careers and jobs in industry, the Department of Biology offers a [certificate program in biotechnology](#).

Health Careers

Advisor: Charles Ferguson

Telephone: 303-556-4350

Advisor: Denise Leberer

Telephone: 303-556-2868

Advisor: Kent Nofsinger

Telephone: 303-556-6218

Website: clas.ucdenver.edu/healthcareers/

Health career advisors on the Denver Campus assist in planning a course of study designed to improve your chances of success in the health career of your choice, including: dentistry and dental hygiene, medicine, medical technology, nursing, optometry, osteopathy, pharmacy, physical therapy, physician assistant, podiatry or veterinary medicine. A comprehensive list of health career options and additional information to help you mold your academic experience to your specific goals is available on the [health careers website](#).

BA/BS-MD Program

The BA/BS-MD degree program is a partnership between University of Colorado Denver's College of Liberal Arts and Sciences and the University of Colorado School of Medicine. The purpose of the program is to assemble 8-10 outstanding students from broadly diverse backgrounds who are committed to serving the health care needs of Colorado. Acceptance into the program and successful completion of all requirements gives students a reserved seat in a top-ranked medical school and the freedom to explore other interests during their exciting college years at CU Denver. For more information, visit <http://babsmd.ucdenver.edu> or contact one of the health career advisors listed above.

Health and Behavioral Sciences

Contact for minor: Sharry Erzinger

Telephone: 303-556-6793

Website: clas.ucdenver.edu/hbsc/

The health and behavioral sciences department offers a minor in community health science that is designed to provide undergraduates with the basic intellectual and methodological tools needed for public health. The minor in community health science supplements graduate degrees in a broad range of fields, including the biomedical sciences, social and behavioral sciences, public health, law, medicine, dentistry, pharmacy, business administration and health services research. The program is especially appropriate for students intending to pursue careers in public health, as well as the primary care specialties in medicine, nursing or health policy and administration.

While a major is not currently available, students may develop an individually structured major (ISM) that combines course work in community health sciences with that of related fields such as anthropology, biology and psychology. For details see the [Individually Structured Major BA](#) section in the [College of Liberal Arts and Sciences chapter](#) of the catalog.

College of Engineering and Applied Science

Contact: Engineering Student Services

Telephone: 303-556-2870

Website: engineering.ucdenver.edu

The desirability of obtaining an engineering education prior to undertaking a study of medicine is increasing continually as medicine itself is evolving. A great deal of new equipment, most of it electronic, is being developed to assist the medical practitioner in treatment of patients.

Bioengineering, engineering systems analysis, probability and communication theory are highly applicable to medical problems. The College of Engineering and Applied Science offers students a pre-medicine option.

Graduate Programs on the Denver Campus

Business School

Director: Errol L. Biggs

Telephone: 303-556-5845

E-mail: Errol.Biggs@ucdenver.edu

Website: ucdenver.edu/ACADEMICS/COLLEGES/BUSINESS/DEGREES/

The Business School offers three degree options for those interested in health administration—MBA, MS and an executive MBA. These three degree options are outlined in the [Business School](#) chapter of this catalog.

College of Engineering and Applied Science

Contact: Department of Civil Engineering

Telephone: 303-556-2871

E-mail: MEngGIS@ucdenver.edu

Website: <http://www.ucdenver.edu/academics/colleges/Engineering/Programs/Civil-Engineering/DegreePrograms/SpecialtyAreas/Pages/GeographicInformationSystems.aspx>

There are numerous ways in which geographic information systems (GIS) are used throughout health care and public health, including environmental health and epidemiology, disease surveillance and health services research. The College of Engineering and Applied Science offers a master of engineering degree with a GIS option, which emphasizes quantitative methods in the development and application of GIS technologies to a spectrum of discipline-specific settings having significant spatial dimensions.

College of Liberal Arts and Sciences

Department of Anthropology

Graduate Director: Christopher Beekman

Telephone: 303-556-6040

Fax: 303-556-8501

E-mail: Christopher.Beekman@ucdenver.edu

Website: clas.ucdenver.edu/anthropology/

Students may earn an MA with a research concentration in medical anthropology or pursue an integrated MA/PhD in health and behavioral sciences. Details of these programs are included in the [Department of Anthropology](#) section in the [College of Liberal Arts and Sciences chapter](#) of this catalog.

Health and Behavioral Sciences

Program Director: Richard Miech

Telephone: 303-556-8422

E-mail: Richard.Miech@ucdenver.edu

Website: clas.ucdenver.edu/hbsc/

The interdisciplinary PhD program in health and behavioral sciences provides an overarching framework integrating social and behavioral science perspectives on health and health care, while allowing the student to select and fully develop a particular research interest and professional career. This program has become a leader regionally in the application of GIS to health-related research.

Depending upon a student's chosen area of concentration, the successful graduate will gain expert knowledge of:

- research design and methods
- the determinants of health and disease
- the structure and organization of health care systems
- behavioral choices and how to use them to enhance wellness
- the contribution of individual, social and cultural factors to health behavior
- how guided change in health care systems may enhance quality, efficacy and access

The significance of these skills in addressing our current health care crisis will insure that graduates will be in demand in a number of employment sectors, ranging from community and public health organizations to nonprofit research organizations and private health care settings.

Programs on the Anschutz Medical Campus

Information about Anschutz Medical Campus programs are in this chapter is for reference only. Contact individual schools and program directors for details.

Health Sciences Programs

Graduate School

Contact: Office of the Dean

Telephone: 303-724-2915

Website: www.ucdenver.edu/academics/colleges/Graduate-School/Pages/default.aspx

Degree Programs: Master of science programs in: biostatistics; clinical science; epidemiology; genetic counseling; modern human anatomy; and nursing—nurse midwifery, nurse practitioner (adult, family, family psychiatric/mental health, pediatric, women's health care), adult clinical nurse specialist, health care informatics, pediatric special needs.

Doctor of philosophy in: biochemistry and molecular genetics; biomedical sciences program; biostatistics; cancer biology; cell biology, stem cells and development; clinical science; computational bioscience; epidemiology; health services research; human medical genetics; immunology; microbiology; molecular biology; neuroscience; nursing; pharmacology; pharmaceutical sciences; physiology and biophysics; rehabilitation science; reproductive sciences; structural biology and biophysics; and toxicology.

At the University of Colorado Anschutz Medical Campus, Graduate School students learn to push the frontiers of human health and disease in more than a dozen basic science, clinical and nursing disciplines. In conjunction with the CU School of Medicine, the Graduate School offers a joint MD/PhD in the medical scientist training program which develops investigators with a broadly-based knowledge of both basic and clinical biomedical sciences. The school's personal mentor-student emphasis provides a distinctive learning experience. See [Health Sciences Programs](#)

School of Dental Medicine

Contact: Office of Admissions and Student Affairs

Telephone: 303-724-7120

Website: www.ucdenver.edu/academics/colleges/dentalmedicine

Degree Programs: doctor of dental surgery, international student program, orthodontics, periodontics and general practice residency programs

The University of Colorado School of Dental Medicine currently enrolls 52 dental students annually. As a graduation requirement, the 202 dental students also provide dental clinical care to underserved populations throughout the state of Colorado. In addition to our nationally recognized DDS program, our post-doctoral in orthodontics, periodontics, general practice residency programs are thriving. Consistent with our mission to increase access to education and care, the International Dental Student Program began in January 2005, which offers qualified graduates of foreign dental programs the opportunity to earn a doctor of dental surgery degree. The School of Dental Medicine is the only regional university-based dental implant center. In addition, the school pioneers research in oral cancer, salivary gland disease, neurobiology and pain control.

School of Medicine

Contact: Office of Admissions

Telephone: 303-724-8025

Website: <http://medschool.ucdenver.edu>

Degree Program: Doctor of medicine

The University of Colorado School of Medicine is nationally and internationally respected for its education, research, patient care and community service programs. Faculty members teach and care for patients at University of Colorado Hospital, Children's Hospital Colorado, Denver Health, National Jewish Health and the Denver V.A. Medical Center, working side by side with nearly 1,000 graduate doctors training at the university. In addition to providing exceptional education and patient care, the medical school attracts gifted faculty and students. The school's physicians and research scientists have pioneered medical breakthroughs that have become national and world models.

Child Health Associate/Physician Assistant

Contact: Office of Admissions

Telephone: 303-724-7963

E-mail: chapa-info@ucdenver.edu

Website:

www.ucdenver.edu/academics/colleges/medicalschoo/education/degree_programs/PAProgram/Pages/Home.aspx

Degree Program: Master of Physician Assistant Studies (MPAS)

Ranked among top programs in the nation, the Child Health Associate/Physician Assistant Program offers a three-year, post-baccalaureate professional program awarding a master's in Physician Assistant Studies. The program has been a national leader in innovative curriculum development in the areas of behavioral health, evidence-based practice, family-centered care, oral health and interprofessional practice. Graduates excel in patient care across the life span, receiving extensive didactic and clinical training in primary care adult medicine as well as the care of infants, children and adolescents. They are employed in a variety of settings including managed care organizations, community health centers, physician's offices, public health agencies, hospitals and emergency departments across rural and inner city health care delivery systems.

Physical Therapy

Contact: Physical Therapy Program

Telephone: 303-724-9144

E-Mail: PT.Admissions@ucdenver.edu

Website: www.medschool.ucdenver.edu/pt

Degree Program: Doctor of physical therapy (DPT)

The University of Colorado Physical Therapy Program offers a three-year, post-baccalaureate professional education program of didactic learning and extensive clinical experiences culminating in a doctor of physical therapy degree (DPT). Graduates are prepared to excel in the physical therapy profession and adapt to the ever-evolving health care environment. As part of the School of Medicine, our entry-level program has been continuously accredited for more than 60 years. Foundational elements of our curriculum include movement science, evidence-based practice, patient-centered care and the delivery of interprofessional health care services as doctors of physical therapy.

Graduate Medical Education (Residency and Fellowship Programs)

Telephone: 303-724-6031

Website: www.ucdenver.edu/ACADEMICS/COLLEGES/MEDICALSCHOOL/EDUCATION/GRADUATEMEDICALEDUCATION/Pages/graduatemedicaleducation.aspx

The University of Colorado School of Medicine and affiliated hospitals provide graduate medical education (training of residents and fellows) in more than 60 specialties and subspecialties. The Graduate Medical Education Manual provides details about these opportunities on the Anschutz Medical Campus.

Continuing Medical Education

Telephone: 303-724-3552

Website:

ucdenver.edu/academics/colleges/medicalschoo/education/continuingmedicaleducation

The School of Medicine provides continuing education opportunities for physicians and other health care professionals worldwide. The mission is to enhance the knowledge, skills and performance of physicians and other health care professionals and, in the process, to improve the health care of the populations they serve.

College of Nursing

Contact: Office of Student Affairs and Diversity

Telephone: 303-724-1812

Website: www.nursing.ucdenver.edu

Degree Programs: BS in nursing, MS in nursing, doctor of nursing practice (DNP), PhD in nursing

The College of Nursing has made major contributions to nursing education, practice and research in Colorado and nationally for 115 years. With nearly 1,000 enrolled students, the college offers four degrees: BS, MS, DNP and PhD; graduates of these programs are sought after for their excellence. The college's BS graduates consistently place well above the state and national average on the nursing licensure examination. The college annually ranks in the top 15 schools of nursing in the country for the quality of its MS program. The College of Nursing is a leading educator of doctorally prepared nurses, internationally recognized for the quality of its graduates as nurse scientists, educators, administrators, and clinical leaders. The college is one of 15 selected U.S. nursing schools piloting a program advancing quality and safety education in nursing (QSEN) and is nationally recognized for excellence in health care informatics.

Skaggs School of Pharmacy and Pharmaceutical Sciences

Contact: Office of Student Services

Director: Beverly Brunson

PharmD Telephone: 303-724-2882

PhD Telephone: 303-724-7263

Fax: 303-724-7330

Website: www.ucdenver.edu/academics/colleges/pharmacy

Degree Programs: Doctor of pharmacy (PharmD), PhD in toxicology, PhD in pharmaceutical sciences

As drug products become more potent, more complex and more numerous, the need for pharmacists to assume a more active role in consultation and patient counseling has increased remarkably. The University of Colorado School of Pharmacy is one of the nation's top-ranked pharmacy schools and is committed to pharmaceutical education, research and patient care. The school's more than 500 professional and graduate students learn about the chemical and physical properties of medicinal agents, the biology of disease and the actions of drugs on the human body, while pursuing either a doctor of pharmacy or PhD degree. The school also provides continuing education programs to pharmacists and other health practitioners throughout the state.

Colorado School of Public Health

Contact: Colorado School of Public Health

Telephone: 303-724-4613

Website: <http://publichealth.ucdenver.edu>

Degree Programs: Master of Public Health (MPH) professional degree; Doctor of Public Health (DrPH) professional degree; Master of Science (MS) in Biostatistics or Epidemiology; Doctor of Philosophy (PhD) in Biostatistics, Epidemiology, or Health Services Research; Certificate in Global Public Health or Public Health Sciences.

Additional and Specialty Programs: Joint Degrees (DVM/MPH, MD/MPH, MPA/MPH, or MURP/MPH); Residency Programs in Occupational & Environmental Medicine or Preventive Medicine.

The CEPH accredited Colorado School of Public Health is the first and only school of public health in the Rocky Mountain region. Collaboratively formed by the University of Colorado, Colorado State University and University of Northern Colorado, the school supports students, practitioners and communities, with access to educational programs, innovative research and community services.

The school offers professional, graduate, residency and certificate programs. Each program provides the training that students need to succeed in general and specialized public health careers. Programs of study focus on a variety of professional interests including applied biostatistics; animals, people and the environment; biostatistics; community and behavioral health; community health education; environmental and occupational health; epidemiology; global health and health disparities; health and exercise science; health communication; health services research; health systems, management and policy; occupational medicine; preventive

medicine; and public health nutrition. Students entering the public health programs have access to the collective resources and expertise offered by the collaborating universities and multiple community and government partnerships.

Tuition, Fees and Financial Aid

At CU Denver, we have a longstanding belief that finances should never stand in the way of motivated, talented individuals who want to better themselves and make a positive impact on the world around them. Through a tradition providing strong financial assistance and aid programs, we enforce this belief every day.

Tuition and Fees

Bursar: Evan Icolari

Office: North Classroom, 1001

Telephone: 303-556-2710

E-mail: bursar@ucdenver.edu

Website: www.ucdenver.edu/student-services/resources/CostsAndFinancing/billing/bill/Pages/default.aspx

Student Service Center: North Classroom, 1003

Manager: Debra Blanton

Telephone: 303-556-3959

All tuition and fee rates are established by the Board of Regents, the governing body of the University of Colorado, in accordance with legislation enacted annually by the Colorado General Assembly. The regents set tuition rates and fees at a budget retreat in June for the coming fall, spring and summer terms, but reserve the right to change rates at any time. Rates for the current year are available online to assist prospective students in anticipating costs. Please refer to the Web site at:

www.ucdenver.edu/student-services/resources/CostsAndFinancing/billing/bill/Pages/default.aspx in July for new rates.

Registration Advance Payment

All students will be required to pay a nonrefundable \$200 registration advance payment each term prior to registering. Students may register for a term once that term's registration advance payment is made. This advance payment will be applied to that term's tuition and fees cost.

A waiver of the term's registration advance payment will be allowed if the student has applied for financial aid and has met other financial aid eligibility criteria for that term. If the student pays the registration advance payment and later applies for and receives full tuition and fees from financial aid, the excess paid will be refunded to the student.

For more information, please visit:

www.ucdenver.edu/student-services/resources/CostsAndFinancing/billing/bill/Pages/default.aspx.

Drop Charge

Beginning the second Tuesday of the fall and spring terms until census date (the sixth day of summer term), a \$100 drop transaction charge will be assessed each time a student drops a

course. This includes student initiated drops done in order to change sections within a course. Section changes done for an administrative purpose through the deans' offices will be exempted from drop charges. If a student withdraws (therefore dropping all classes), a drop charge will be assessed for each course.

For more information, please visit:

www.ucdenver.edu/student-services/resources/CostsAndFinancing/billing/bill/Pages/default.aspx.

Special tuition rates are available for nondegree graduate students taking undergraduate courses only. Contact the Office of the Registrar at 303-315-2600 to request this special tuition rate.

Payment of Tuition and Fees

All tuition and fees (except the application fee) are due on the day indicated on your billing statement. Students may choose the payment plan that is available on the Denver Campus. Specific information on the deferred payment plan is included on the [Web site](#), published before each semester.

Students who register for courses are liable for payment of tuition and fees if they withdraw from school after census date. Refund policies for students who withdraw from the university both before and after census date are included in the [academic calendar](#). A student with financial obligations to the university will not be permitted to register for any subsequent term, to graduate, to be issued transcripts or to be listed among those receiving a degree or special certificate. The only exception to this regulation involves loans and other types of indebtedness that are due after graduation. Personal checks are accepted for any university obligation. Any student who pays with a check that is not acceptable to the bank will be assessed an additional service charge. Students may also pay tuition and fees by credit card at the Student Service Center, or through the [UCDAccess portal](#) by credit card or an electronic withdrawal directly from a checking or savings account.

Students who register in a nondegree status, and who later apply and are admitted to a degree status for that term, are responsible for the difference in tuition between the nondegree program and their applicable degree program and will be billed accordingly.

Undergraduate tuition for resident students is based on the total number of completed semester hours. The rate increases once a student has completed 60 hours.

Direct Deposit

Direct deposit is the standard method of issuing student account refunds to CU Denver students with credit balances. Students are strongly encouraged to sign up for direct deposit well in advance of any anticipated student account refunds, and may do so online via the "Finances" section of the [UCDAccess portal](#).

Students who do not sign up for direct deposit will receive a paper refund check through the mail. Refunds will only be issued via direct deposit or through the mail. **Students are not allowed to pick up their refund check from the Bursar's office.**

Tuition Appeals

Students are responsible for abiding by the published deadlines. Tuition is not refundable when students drop or withdraw from courses after the published deadlines. If circumstances beyond the student's control have made the late drop or withdraw necessary, the student may file a tuition appeal.

Instructions and forms for submitting a tuition appeal are available on the registrar's website, www.ucdenver.edu/student-services/resources/registrar/, or in the Office of the Registrar in the CU Building Annex. Completed tuition appeals packets must be submitted to the tuition appeals coordinator in the registrar's office within three months following the end of the term being appealed.

Past Due Tuition and Fees

Past due student accounts are referred to the Office of Student Debt Management (SDM) for collection. If accounts are not paid in full, a 20 percent internal collection cost will be assessed on the unpaid balance. This is in addition to the 1.75 percent service charge per month that all past due accounts are subject to. If your account is referred to a third-party agency, you must pay any collection costs and attorney fees allowed by the Uniform Consumer Credit Code.

College Opportunity Fund (Vouchers)

An act of the Colorado state legislature in May 2004 established a new way for the state to provide state tax dollar support for higher education at the undergraduate level. The state is no longer appropriating monies to institutions for undergraduate education, but is providing direct funding to undergraduate students through the College Opportunity Fund (COF). This program is also known as "vouchers" or "stipends." If an undergraduate in-state student applies for and authorizes use of the voucher, COF vouchers will be applied to the student's university bill. For details, see www.CollegeinColorado.org.

Residency Classification for Tuition Purposes

Tuition classification is governed by Colorado statutes that apply to all state-funded institutions in Colorado. Institutions are bound by the provisions of this statute and are not free to make exceptions to the rules set forth.

Students are initially classified as in-state or out-of-state for tuition purposes at the time of application. The classification is based upon information furnished by the student and from other relevant sources. After the student's status is determined, it remains unchanged in the absence of satisfactory evidence to the contrary.

Once a student is classified as a nonresident for tuition purposes, the student must petition for a change in classification. Petitions must be submitted NO LATER THAN THE FIRST OFFICIAL DAY OF CLASSES of the term for which the student wishes to be classified as a resident. It is preferred that petitions be received 30 days prior to the beginning of the term. Late petitions will not be considered until the next semester. Specific information may be obtained from the [Office of Admissions](#).

The final decision regarding tuition status rests with the university. Questions regarding residence (tuition) status should be referred only to the tuition classification officer. Opinions of

other persons are not official or binding upon the university. Additional information is available in the brochure *Classification of Students for Tuition Purposes*, which may be obtained from the admissions office.

Basic Requirements

The statute provides that an in-state student is one who has been a legal domiciliary of Colorado for one year or more immediately preceding the beginning of the term for which the in-state classification is being sought. Persons over 23 years of age or who are emancipated establish their own legal domicile. Those who are under 23 years of age and unemancipated assume the domicile of their parent or court-appointed legal guardian. An unemancipated minor's parent must, therefore, have a legal domicile in Colorado for one year or more before the minor may be classified as an in-state student for tuition purposes.

Establishing Domicile

Domicile is established when one has a permanent place of habitation in Colorado and the intention of making Colorado one's true, fixed and permanent home and place of habitation. The tuition statute places the burden of establishing a Colorado domicile on the person seeking to establish the domicile. The question of intent is one of documentable fact and needs to be shown by substantial connections with the state sufficient to evidence such intent. Legal domicile in Colorado for tuition purposes begins the day after connections with Colorado are made sufficient to evidence one's intent. The most common ties with the state are (1) change of driver's license to Colorado, (2) change of automobile registration to Colorado, (3) Colorado voter registration, (4) permanent employment in Colorado and most important, (5) payment of state income taxes as a resident by one whose income is sufficient to be taxed. Caution: payment or filing of back taxes in no way serves to establish legal domicile retroactive to the time filed. In order to qualify for in-state tuition for a given term, the 12-month waiting period (which begins when the legal domicile is established) must be over by the first day of classes for the term in question. If one's 12-month waiting period expires during the semester, in-state tuition cannot be granted until the next semester.

Resident Tuition for Active Duty Military Personnel

The Colorado legislature approved resident tuition for active duty military personnel on permanent duty assignment in Colorado and for their dependents. **ELIGIBLE STUDENTS MUST BE CERTIFIED EACH TERM.** Students obtain a completed verification form from the base education officer and submit the form with their military ID to the admissions office after they have registered but before the end of the drop/add period. At the time the verification form is certified in the admissions office, the student's bill will be adjusted to reflect the resident tuition rate. Students who have been certified remain classified as nonresidents for tuition purposes and must petition to change their status once they establish permanent ties to Colorado.

Financial Aid

Director of Financial Aid: James Broscheit

Office: North Classroom, 1030

Telephone: 303-556-2886

E-mail: financialaid@ucdenver.edu

Website: www.ucdenver.edu/student-services/resources/CostsAndFinancing/Pages/CostsFinancing.aspx

The financial aid office delivers more than \$185 million in financial aid awards to qualified students at the Denver Campus each year. Students will be considered for a package of need-based grant, work-study (part-time employment), and/or student loan funds. Awards are contingent upon fund availability.

Eligibility

Each student must qualify for financial aid as follows:

1. Be a U.S. citizen or be admitted to the United States by the INS on a permanent basis.
2. Be classified as a degree-seeking student by the Denver Campus Office of Admissions (Teacher certification students are eligible to apply for financial aid and are considered undergraduate students according to federal guidelines).
3. Be enrolled for a minimum number of credits as specified on the financial aid award letter.
4. Meet the minimum requirements of Financial Aid Academic Standards.
5. Apply for financial aid by submitting all of the required documentation. The Free Application for Federal Student Aid (FAFSA) is required for all programs.
6. Not be in default on any student loan or owe a refund on any educational grant.
7. Male applicants must be registered with the Selective Service.

Applying

Each aid applicant must complete the FAFSA application and other required materials for submission to the financial aid office. Complete information must be available to the office before eligibility can be determined.

Limited Funds—The majority of general financial aid funds are awarded on a **first-come, first-served** basis to eligible students who document significant financial need and who submit a valid FAFSA application to the Financial Aid Office. The FAFSA is available at www.fafsa.gov. Financial aid is awarded to needy students until all of the funds are committed for the year. Application for financial aid must be made each year; application materials are available soon after January 1 of each year.

It is the student's responsibility to be sure application materials are complete and submitted. Student's must check their "TO DO LIST" on the student portal to confirm completion and to accept/decline awards. Please contact the financial aid office for applicable forms and complete details. You may also obtain this information online at www.ucdenver.edu/student-services/resources/CostsAndFinancing/Pages/CostsFinancing.aspx. All financial aid policies and procedures are subject to change due to revisions in federal and state laws, regulations, guidelines and applicable institution policies.

Qualifying

Financial Need

Most financial aid awards are based on the concept of financial need. Financial need is calculated as cost of attendance (tuition, fees, books, living expenses) minus family contribution (student/spouse contribution and parents' contribution for dependent students).

The cost of attendance is the estimated total cost to attend CU Denver, including tuition and fees, room, board, books and supplies, transportation and personal expenses. The financial aid office determines standard budgets based upon average tuition and fees charged and other budget items established by the Colorado Department of Higher Education (CDHE). Current cost-of-attendance figures are available on our website at www.ucdenver.edu/student-services/resources/CostsAndFinancing/Pages/CostsFinancing.aspx.

The contributions from the student/spouse and from the parents are calculated by a standardized formula that is required by federal law. The formula considers income, savings and other assets, family size, number of children in postsecondary school and other factors.

Financial Aid is intended to supplement and not replace financial contributions from the student and parents. If the student/spouse contribution plus the parents' contribution is equal to or greater than the cost of attendance, then the student will not qualify for need-based financial aid. Students may appeal for special consideration if they are experiencing unusual circumstances.

Determining Dependency Status

The federal government provides specific guidelines that define dependency status for financial aid purposes. Dependency status is determined by a series of questions on the FAFSA that can be reviewed at www.fafsa.gov. Students classified as *dependent* are required to provide student **and** parent household and financial information when applying for financial aid. If a student is classified *independent*, then the student's parental information is not considered when the calculation of family contribution is made. Current law defines an *independent student* as one who meets at least one of the following conditions:

1. Age 24 or older (born before January 1, 1989)
2. Graduate student
3. Married student (at the time of filing the FAFSA)
4. Student with legal dependents other than a spouse
5. Student has children who receive more than half their support
6. Veteran of the U.S. armed forces or currently on active duty
7. At age 13 or older was an orphan, ward of the court or in foster care
8. Student is an emancipated minor or in a legal guardianship in their state of legal residence
9. On or after July 1, 2012, was a unaccompanied homeless youth or considered an unaccompanied, self-supporting youth at risk of becoming homeless

A dependency status may be appealed to the financial aid office if unusual circumstances exist. Contact the Financial Aid Office for appeal guidelines.

Course Loads

Most undergraduate financial aid programs require at least 12 credits per semester, and graduate programs require at least 5 credits per semester. Federal Stafford Loan recipients must carry at least a half-time credit load (6 semester hours for undergraduates per semester and 3 semester hours for graduates per semester). Higher or lower minimums may be required for individual awards (check your award letter for the exact number of credits required).

Notice for Graduate Students: The financial aid definition of half-time enrollment may differ from the academic definition of half-time enrollment. See a financial aid advisor for more information.

Satisfactory Academic Progress (SAP)

Students must make satisfactory academic progress (SAP) as defined by the Department of Education to continue to be eligible for financial aid. For more information, students should review the Financial Aid Academic Standards policy, available on our [website](#) or in the financial aid office.

Appeals

Students may appeal all suspension decisions by submitting a SAP Appeal to the financial aid office in person, by mail or by fax. Appeals are reviewed in order received and timing is based on volume of appeals. Notifications of the decision is generally mailed to the student. The decision of the appeals committee is final.

Refunds and Repayments

To comply with Federal financial aid laws and regulations, CU Denver is required to review and determine if financial aid can be kept for all students who withdraw, never begin classes, receive all F's. The federal government has defined that the recipient has only earned a portion of their financial aid, and the earned aid is directly proportional to the percentage of time the student attended classes. Aid that is unearned must be returned to the federal financial aid programs. This may result in a balance due the institution. Unearned aid includes both the amount allocated to tuition and fees and the amount allocated to the student for other educational expenses. For a complete description of these requirements, request a copy of the financial aid repayment policy from the Financial Aid Office.

Reapply Each Year

Financial aid awards are not automatically renewed each year. Students must reapply each year. Application materials for the next academic year are available soon after January 1.

Awards

Students are informed by e-mail notification of their financial aid eligibility after all application materials have been received in the financial aid office. If awarded, an e-mail notice is sent to the student advising them to review their award on the student portal. This information will include the types and amounts of aid awarded and the minimum number of semester hours required each term.

Grants, Loans and Work-Study

The following aid programs are funded by the federal government:

1. *Federal Pell Grant*—Eligibility for the Federal Pell Grant is determined before any other aid is awarded. Awards are defined by a strict need-based formula provided by the federal government, and award amounts vary depending on the amount of financial need and enrollment status. Only undergraduate students seeking a first time bachelor's degree are eligible.
2. *Federal Teach Grant*—This Teach Grant program is available to specific students who intend to teach in a public or private service school that serves students from low-income families. Students can be considered for up to \$4000 per academic year, if eligible. More information can be found on the [Financial Aid Office website](#).
3. *Federal Direct Stafford Loan (2 types)*—The **subsidized** Federal Direct Stafford Loan program requires that students show financial need in order to qualify. Interest on the subsidized loan is paid for the student by the federal government as long as the student remains enrolled at least half-time and for a six-month grace period after graduation or dropping below half-time enrollment. *Effective July 1, 2012, only undergraduate students are eligible for Subsidized Loans.* The **unsubsidized** Federal Direct Stafford Loan program **does not** require the student to document financial need, but a valid FAFSA application is required. Eligibility is calculated as the cost of attendance minus other financial aid awarded. *Interest is not paid by the federal government for the unsubsidized program, and the student may elect to pay the interest now or to allow the interest to be added to the total principal loan amount.*
4. *Federal Direct PLUS Loan*—Graduate students and parents of *dependent students* are eligible to borrow under the Federal Direct PLUS program. The PLUS program is unsubsidized, and interest payments become the responsibility of the borrower at the time of disbursement.
5. *Federal Supplemental Educational Opportunity Grant (SEOG)*—This is a need-based grant program for students who have not yet obtained a bachelor's degree. Students must be eligible for a Federal Pell Grant to be considered for SEOG. This funding is very limited.
6. *Federal Perkins Loan*—This is a need-based loan program, with an fixed interest rate currently at 5 percent. No repayment of interest or principal is due until nine months after the student ceases to be enrolled at least half-time or graduates.
7. *Federal College Work-Study*—Work-study is a need-based program that allows students to work on a part-time basis (on campus, off campus or at nonprofit agencies) to help meet their educational costs.

The state of Colorado funds the following programs:

1. *Colorado Student Grant*—A need-based grant for resident undergraduate students.
2. *Colorado Graduate Grant*—A need-based grant for resident graduate students.
3. *Colorado Work-Study*—A program similar to the College Work-Study program but limited to resident undergraduate students. Limited amounts of Colorado Work-Study funds are available to students regardless of financial need. In addition, there are some grant programs funded by the institution.

4. *Colorado Teach Grant Program*—This scholarship to students in a approved teacher preparation program who excel in high-need content areas and who demonstrates an interest or commitment to teaching as a career.

DRUG CONVICTIONS AND FINANCIAL AID ELIGIBILITY

A student who has been convicted of any offense under any federal or state law involving the possession or sale of a controlled substance shall not be eligible to receive any grant, loan or work assistance if the conviction occurred during a period of enrollment for which the student was receiving aid.

If convicted of an offense involving:

The possession of a controlled substance: Ineligibility period is:

First offense 1 year (from date of conviction)
 Second offense 2 years (from date of conviction)
 Third offense Indefinite

The sale of a controlled substance: Ineligibility period is:

First offense 2 years (from date of conviction)
 Second offense Indefinite

Scholarships

For a complete listing of the many scholarships offered at the Denver Campus, go to www.ucdenver.edu/student-services/resources/Scholarships/. In addition, many Internet search programs are available to help students identify scholarships for which they may be eligible. One of the largest is www.FastWeb.com. You may also research www.finaid.org.

Other Sources

There are several other sources of funds for students. Employment opportunities are listed in the Student Employment Office and the Career Center. Graduate students should inquire about additional types of financial aid through their academic departments. American Indian students should request information about Bureau of Indian Affairs and tribal scholarships from their tribe.

Short-Term Loans

Short-term loans are available to enrolled students to cover unexpected financial needs. Loans are generally limited to \$500 and are due within 30 days. There is a \$10 per loan administrative charge. Restrictions may apply. Please see the Financial Aid Office for details.

Find it Here

Not sure of the difference between the registrar and the bursar? Here's a quick guide to finding what you need.

Admissions

CU-Denver Building Annex, 200

303-556-2704

www.ucdenver.edu/admissions

Application: pick up, drop off, application fee payment, admission status

Residency forms

Information about establishing domicile for tuition classification

General transfer credit information

Information about CU Denver

Scholarship guides

Talk to an admission counselor

Bursar

North Classroom, 1001

303-556-2710

www.ucdenver.edu/student-services/resources/CostsAndFinancing/billing/bill/Pages/default.aspx

Application fees payments by credit card

Audit Registration Card

College Opportunity Fund (vouchers)

Departmental deposit transactions

Payment of tuition and fees

Refunds

Student account reconciliation

Student Service Center—one-stop processing for bursar, financial aid, registration and admission functions

Third-party billing

Financial Aid

North Classroom, 1030

303-556-2886

www.ucdenver.edu/student-services/resources/CostsAndFinancing/Pages/CostsFinancing.aspx

Free Application for Federal Student Aid (FAFSA) www.fafsa.gov

Grant, work-study and student loan information

Short term loans

How to apply for financial aid

Registrar

CU-Denver Building Annex, 100

303-315-2600

www.ucdenver.edu/student-services/resources/registrar/

Class registration

Course descriptions

Diplomas

Enrollment verification

Grades and GPA

Schedule adjustment (drop/add) forms
Schedule Planner (online course schedule)
SMART (online registration system)
Transcripts
Tuition appeals

Student Debt Management

North Classroom, 1005
303-556-8365
www.ucdenver.edu/student-services/resources/CostsAndFinancing/billing/SDM/Pages/SDM.aspx
Past-due tuition collection
Student loan processing

Office of the Registrar

CU Denver offers students a completely online system of planning their schedules and registering for classes. As a student, you are responsible for knowing the deadlines, rules, regulations, course loads, prerequisites and policies of the university, as well as those of the college or school in which you are enrolled, all of which is provided within this online catalog.

Office of the Registrar

Registrar: Ingrid Eschholz
Office: CU Denver Building Annex, 100
Telephone: 303-315-2557
E-mail: registrar@ucdenver.edu
Web site: www.ucdenver.edu/student-services/resources/registrar/

Academic Calendar*

Maymester / Summer 2013

Registration	Begins late February
May 27	Memorial Day holiday (campus closed, no classes)
May 19 - June 5	Maymester
June 10 - Aug 3	Summer semester
July 4	Independence Day holiday observation (campus closed, no classes)
Aug 3	End of term

Fall 2013

Registration	Begins mid March

August 19	First day of classes
September 2	Labor Day holiday (campus closed, no classes)
November 25 - Dec 1	Fall break (campus open, no classes)
November 28	Thanksgiving holiday (campus closed, no classes)
December 9 - 14	Finals week
December 14	Commencement

Spring 2014

Registration	Begins late October
January 20	Martin Luther King Jr. holiday (campus open, no classes)
January 21	First day of classes
March 24 - 30	Spring break (campus open, no classes)
May 12 - 17	Finals week
May 17	Commencement

Current [academic calendars](#) are available on the Registrar's website.

*The university reserves the right to alter the academic calendar at any time. Consult the website at www.ucdenver.edu/student-services/resources/registrar/ for application deadline dates, deadlines for changing programs and registration dates and procedures.

Registration

Students should review the sections of this catalog that describe in detail the academic programs available at the Denver Campus.

New and transfer undeclared undergraduate students, as well as prebusiness and preengineering students, should contact the Academic Advising Center at 303-352-3520 to arrange for an advising appointment prior to registration. Other freshmen and transfer students should contact their school or college to arrange for an advising appointment prior to registration.

The registrar's office will send an e-mail message to the student's university-assigned e-mail address, inviting the student to register, including registration information and a registration time assignment. Registration is by time assignment only. Students may register via the web on or after their assigned time.

Web Registration and Student Information

Denver Campus students can register and obtain information regarding their academic and financial records by logging into their UCD Access portal.

Online registration allows the student to check the availability of specific courses prior to their registration time and to search for available courses by department, course level or meeting time. If registration in a course is denied, the reason will be specified in UCD Access.

Student information available online currently includes mailing address verification (or change), admission application status, financial aid information, schedule by semester, grades by semester, unofficial transcript, account balance, online payment and degree audit (for some programs). For security reasons, none of the student information screens will display a student's name or student number.

Additional information regarding programs, faculty, courses and policies are available through the home page: www.ucdenver.edu.

Definition of Full-Time and Part-Time Status

Individual students receiving financial aid may be required to complete hours in addition to those listed below. The exact requirements for financial aid will be listed in the student's financial aid award letter.

Undergraduates and nondegree graduate students:

Full-time 12 or more semester hours

Part-time 6 or more semester hours

Graduate degree students:

Full-time:

5 or more semester hours

0 semester hours as candidate for degree

1 or more semester hours of thesis (not master's reports or thesis preparation)

Half-time:

3 or more semester hours

Notes

Enrollment verification including full-time/part-time attendance can be certified beginning the first day of class.

Hours for calculating full-time/part-time attendance do not include interinstitutional hours, nor do they include hours on another CU campus, unless the student is enrolled through concurrent registration.

Students receiving veteran benefits should contact the Veteran Student Services manager for the definition of full-time status for summer sessions. Contact information: 303-556-2745 or vaoffice@ucdenver.edu.

Individual exceptions to the minimum graduate course-load levels are considered for financial aid purposes by the financial aid committee. Students must file a written appeal with the Office of Financial Aid.

Add/Drop

Please review the current term's academic calendar for the most recent add/drop deadlines by visiting the registrar's website at www.ucdenver.edu/student-services/resources/registrar/.

Administrative Drop

An administrative drop is implemented by university officials in the registrar's office or the dean's office. A student may be administratively dropped from one or more classes or withdrawn from all classes for any of the following reasons:

- failure to meet certain preconditions, including but not limited to:
 - class cancellations
 - failure to meet course prerequisites
- whenever the safety of the student, faculty member or other students in a course would be jeopardized
- academic suspension, including but not limited to failure to attain or maintain a required GPA
- disciplinary suspension for having been found to have violated the student code of conduct
- disruptive behavior determined by the chair and/or associate dean to be detrimental to the progress of the course and the education of other students

Auditing Courses

To qualify as an auditor for fall, spring or summer semester, a student must be 21 years of age or older or approved by the registrar. Auditors may not be registered for any other University of Colorado courses during the time they are auditing and are not eligible to audit courses if they are under suspension from the university or have outstanding financial obligations to the university. The registrar's office does not keep any record of courses audited; therefore, credit for these courses cannot be established. Auditors may attend as many courses as they wish (except those courses with laboratories or where special equipment is used), provided they have received permission from each instructor.

An auditor's card is issued after classes begin. This card should be presented to the instructor. Auditors, whether resident or nonresident, pay three semester hours of resident tuition for all audited courses during the fall or spring semester for class instruction and library privileges only. Auditors do not receive student parking privileges and are not eligible for other student services. For more information, contact the [Bursar's office](#).

Senior citizens (aged 60 and over) may audit classes at no charge. Contact the Division of Enrollment and Student Affairs at 1250 14th Street, 303-556-8427.

Candidate for Degree

You must be registered for at least one course during the semester in which you take the comprehensive exam, defend your dissertation or thesis or present your final project. If you are NOT registered for any other courses, you MUST register for CAND 5940 - Candidate for Degree. You may only register for this course once.

To register for CAND 5940, Candidate for Degree, (you may NOT be registered for any other courses) obtain the class number from your department or program director. You will be billed at one credit hour of resident tuition plus the ISIS fee and the information technology fee. Students registered for CAND 5940 will be considered full-time for financial aid and enrollment verification purposes.

Course Load/Restrictions

In most cases, students wishing to take more than 18 semester hours (12 in the summer session) must have the overload approved by the dean of their college or school. Consult the individual college or school for specific guidelines as to course-load restrictions.

Credit by Examination

Degree students may take examinations for credit. To qualify for an examination, the student must be formally working toward a degree at CU Denver, have a GPA of at least 2.0 and be currently registered. Contact the registrar's office for instructions. A nonrefundable fee is charged. Students should contact their degree advising office to determine whether the credit will apply to their degree.

No Credit

Students may register for a course on a no-credit basis with the consent of their instructor and the dean of their school or college. No grade or credit is awarded. The transcript reflects the name of the course taken and an N/C notation.

Pass/Fail Procedure

1. Students who wish to register for a course on a pass/fail basis (or to revert from pass/fail to graded status) may do so only during the drop/add period.
2. Up to 16 semester hours of course work may be taken on a pass/fail basis and credited toward the bachelor's degree. *Only six hours of course work may be taken pass/fail in any given semester.* (Note: Individual schools and colleges may have additional restrictions as to pass/fail credits. See the accompanying chart for an overview.)
3. Instructors will not be informed of pass/fail registration. All students who register for a pass/fail appear on the regular class roster, and a normal letter grade is assigned by the professor. When grades are received in the registrar's office, those registrations with a pass/fail designation are automatically converted by the grade application system. Grades of D– and above convert to grades of P. Courses taken pass/fail will be included in hours toward graduation. Pass grades are not included in a student's GPA. An F grade in a course taken pass/fail will be included in the GPA.
4. Pass/fail registration records are maintained by the registrar's office.
5. Exceptions to the pass/fail regulations are permitted for specified courses offered by the School of Education & Human Development, the extended studies programs and study abroad programs.
6. Graduate degree students can exercise the P/F option for undergraduate courses only. **A grade of P will not be acceptable for graduate credit to satisfy any Graduate School requirement.**
7. Students who register for a course on a pass/fail basis may not later (after the drop/add period) decide to receive a letter grade.

Note: many other institutions will not accept a P grade for transfer credit.

PASS/FAIL OPTION RESTRICTIONS

Core Curriculum courses used to satisfy Intellectual Competencies cannot be taken on pass/fail basis.

<u>College/School</u>	<u>General</u>	<u>Maximum</u>
Business	Only nonbusiness electives may be taken pass/fail.	Only 6 semester hours may be taken pass/fail.
Engineering and Applied Science	Required courses may not be taken pass/fail. Upper division humanities and social sciences electives are acceptable; otherwise, major department approval is required.	A maximum of 16 semester hours may be taken pass/fail, including courses taken in the honors program.
Liberal Arts and Sciences	College requires a minimum of 30 semester hours of courses with letter grades. Courses used to satisfy major, minor or foreign language cannot be taken on a pass/fail basis.	No more than 6 hours pass/fail any semester. A maximum of 16 semester hours may be taken pass/fail.

Module/Intensive Courses

Courses are also offered in five-week modules, in special weekend courses and in seminars. Students should contact the college/school for information on short-term courses offered each semester.

Withdrawal from the University

To withdraw from the University of Colorado Denver, students must drop all courses for the semester. Prior to census (see current academic calendar for census date), students must use the web registration system to drop courses. Courses dropped during this period are not recorded on the student's permanent record.

After the census date (see current academic calendar for census date), through the 10th week (fourth week for summer) students must submit a withdrawal form with the approval of the dean and the Office of Financial Aid (if receiving aid). Courses dropped during this period will be recorded on the student's permanent record with a grade of W.

Students seeking to withdraw after the 10th week (fourth week for summer) must petition the associate dean of their school or college. A student who stops attending classes without officially withdrawing from the university will receive grades of F for all course work during that term.

Deadlines for dropping module and intensive courses appear in the student portal.

Other Registrations

Concurrent Enrollment

Degree-seeking students who wish to attend two University of Colorado campuses concurrently must obtain permission from their school or college on their home campus. A student in a degree program registered on the Denver Campus may take up to two courses or six semester hours (whichever is greater) on another CU campus if:

- the student obtains a concurrent registration form from the office of the academic dean or the registrar's office
- the course is not offered at the Denver Campus
- the student obtains approval from the academic dean
- there is space available at the other (host) campus
- the student pays tuition at the Denver Campus (home campus) at Denver Campus rates
- the home campus school or college arranges for space in the host campus classes
- the concurrent request is processed before the end of the drop/add period on both the host and home campuses

To drop a concurrent course during the *host* campus drop/add period, arrange the drop at the home campus registrar's office. To drop a concurrent course after the end of the host campus drop/add deadline, drop the course at the *host* campus registrar's office.

Interinstitutional Registration

CU Denver degree students may enroll in courses offered by the Community College of Denver. Students must be enrolled at CU Denver for at least one course during the term to be eligible to register interinstitutionally. Registration is on a space available basis. Interinstitutional courses are evaluated for transfer credit and are not included in a CU Denver student's GPA.

Pooled Courses at Metropolitan State College of Denver

Certain courses in the College of Liberal Arts and Sciences and the College of Arts & Media have been pooled with similar courses at Metropolitan State College of Denver (Metro State).

Undergraduate students at the Denver Campus may register for any of the pooled courses listed in the CU Denver web registration system. Restrictions apply to the pooled courses:

1. CU Denver graduate students are not eligible to register for Metro State pooled courses.
2. Metro State pooled courses will not be included in the University of Colorado GPA. Metro State courses will appear on the University of Colorado transcript and will count in hours toward graduation. See an academic advisor for approval.
3. Metro State courses cannot be used to meet specific course requirements toward the major without prior written approval of the student's dean.
4. CU Denver students who wish to take nonpooled Metro State courses must apply directly as a nondegree student to Metro State and pay tuition and fees to Metro State. Nonpooled classes will not appear on the University of Colorado transcript and will not be used in determining course loads for financial aid eligibility. Students may request an

Metro State transcript to be sent to CU Denver at the end of the term to determine if credit can be transferred.

5. Metro State common pool courses will not satisfy residency requirements at CU Denver. The last 30 semester hours applied toward the baccalaureate degree must be taken in residence at the CU Denver campus.
6. CU Denver students taking Metro State common pool courses are subject to the Metro State grading policy and student code of conduct.

Academic Records

Student Classification

Students are classified according to the number of semester hours passed:

Freshman	0–29 hours
Sophomore	30–59 hours
Junior	60–89 hours
Senior	90+ hours

All transfer students will be classified on the same basis according to their hours of credit accepted by the University of Colorado.

Grading System and Policies

The following grading system and policies have been standardized for all academic units of the university. Other academic policies are listed in the [University Policies chapter](#) of this catalog.

Grade Symbols

The instructor is responsible for whatever grade symbol (e.g., A, B, C, D, F, I or IP) is to be assigned. Special symbols (NC and W) are indications of registration or grade status and are not assigned by the instructor. Pass/fail designations are not assigned by the instructor but are automatically converted by the grade application system, as explained under “Pass/Fail Procedure.”

Standard Grades	Quality Points
<i>A = superior/excellent</i>	4
<i>A(-) =</i>	3.7
<i>B(+) =</i>	3.3
<i>B = good/better than average</i>	3
<i>B(-) =</i>	2.7
<i>C(+) =</i>	2.3
<i>C = competent/average</i>	2
<i>C(-) =</i>	1.7

<i>D(+)=</i>	<i>1.3</i>
<i>D =</i>	<i>1</i>
<i>D(-) = minimum passing</i>	<i>0.7</i>
<i>F = failing</i>	<i>0</i>

Instructors may, at their discretion, use the PLUS/MINUS system but are not required to do so.

I—incomplete—converted to an F if not completed within one year.

IP—in progress—thesis at the graduate level only.

P/F—pass/fail—P grade is not included in the GPA; the F grade is included; up to 16 hours of pass/fail course work may be credited toward a bachelor's degree.

H/P/F—honors/pass/fail—intended for honors courses; semester hours count toward the degree but are not included in the GPA.

NC indicates registration on a no-credit basis.

W indicates withdrawal without credit.

Explanation of I

An I is an incomplete grade. Policies with respect to I grades are available in the individual college and school dean's offices.

An I is given only when students, for reasons beyond their control, have been unable to complete course requirements. A substantial amount of work must have been satisfactorily completed before approval for such a grade is given.

The instructor who assigns an I sets the conditions under which the course work can be completed and the time limit for its completion. The student is expected to complete the requirements by the established deadline and not retake the entire course.

It is the instructor's and/or the student's decision whether a course should be retaken. If a course is retaken, it must be completed on the Denver Campus or in extended studies classes. The student must re-register for the course and pay the appropriate tuition.

The final grade (earned by completing the course requirements or by retaking the course) does not result in deletion of the I from the transcript. A second entry is posted on the transcript to show the final grade for the course, with a notation that the course was 'originally graded as I.'

At the end of one year, I grades for courses that are not completed or repeated are changed to an F.

Grade Point Average (GPA)

GPA is computed by multiplying the credit points per hour (for example, B = 3) by the number of semester hours for each course. Total the hours, total the credit points and divide the total points by the total hours. Grades of P, NC, ***, W, IP, and I are not included in the GPA. I grades that are not completed within one year are calculated as F in the GPA.

If a course is repeated, all grades earned are used in determining the GPA. Grades received at another institution are not included in the University of Colorado GPA.

Undergraduate, graduate and nondegree graduate GPAs are calculated separately. Enrollment in a second undergraduate or graduate program will not generate a second undergraduate or graduate GPA.

Students should refer to their academic dean's office for individual GPA calculations as they relate to academic progress and graduation from their college or school.

Good Academic Standing

Good academic standing requires a minimum GPA that is determined by the student's school or college. Grades earned at another institution are not used in calculating the GPA at the University of Colorado.

Degree students should consult the academic standards section of their school or college for degree program requirements.

Continuation as a nondegree student is contingent upon maintaining an overall GPA of 2.0 upon completion of 12 or more semester hours.

Failure to maintain the required average will result in a nondegree student being suspended. The suspension is for an indefinite period of time and becomes part of the student's permanent record at the university. While under suspension, enrollment at the university is restricted. For more information contact the dean's office of the school /college you are enrolled in.

Nondegree students are not placed on academic probation prior to being suspended.

Automated Degree Progress

A degree progress report is an automated record reflecting a student's academic progress toward completing degree requirements in a declared major. Each degree progress report draws its information from the university's student information system. Each time a new report is run, the most up-to-date course information and grades are used. A report can be requested by logging on to the student portal. Students should contact their schools and colleges for additional information on the availability of a specific degree progress report.

Grade Reports

Grades are normally available within two weeks after the end of the semester and can be accessed by logging into the UCD Access portal.

Graduation

Undergraduates

Students should make an appointment with the advising office of their school or college to determine what requirements remain for graduation. Students intending to graduate must complete an intent to graduate application found on the [Office of the Registrar's Web page](#) under Degree Planning between the first day of registration for the term and the last day of drop/add (noted on the academic calendar - census). Students will not be officially certified to graduate until a final audit of the student's record has been completed approximately six weeks after the end of the term. After students have been certified to graduate, they must reapply to return to the Denver Campus.

Graduates

Students on the Denver Campus must file an application for candidacy with their graduate school office and complete an intent to graduate application found on the [Office of the Registrar's Web page](#) under Degree Planning between the first day of registration for the term and the last day of drop/add. Check with your school for more information. Students will not be officially certified to graduate until a final audit of the student's record has been completed, approximately six weeks after the end of the term. After students have been certified to graduate, they must reapply to return to CU Denver.

Commencement

In early March, informational brochures will be mailed to students eligible to participate in the May spring-semester commencement. In early October, information regarding the December commencement will be mailed to students who graduated in summer term or expect to graduate in fall term. Information will be provided about ordering special display diplomas, fittings for caps and gowns and obtaining diplomas and transcripts with the degree recorded. This information is also available at www.ucdenver.edu/student-services/graduation/Pages/Graduation.aspx.

Class Rank

Class rank will be calculated by undergraduate degree program within a school or college. It is possible for more than one student to have the same class rank. If more than one student has equivalent class ranking it will be reported as such. The option for a letter indicating the student's class rank will be provided to any graduating undergraduate, but there will be no designation on the University of Colorado transcript for Denver Campus students receiving bachelor's degrees. There will be one class rank per student per degree. Students can obtain class rank letters through the student portal. Late postings and grade changes after degrees are posted will not recalculate rankings. Rankings will be a snapshot calculation conducted once per term for each graduating undergraduate student after degrees are posted.

Official Transcripts

The official transcript includes the complete undergraduate and graduate academic record of courses taken at all campus locations or divisions of the University of Colorado. It contains the signature of the registrar and the official seal of the university.

Official transcripts for any given semester are available approximately three weeks after final exams. A transcript on which a degree is to be recorded is available approximately eight weeks after final exams.

For Denver Campus students, transcripts may be ordered through the student portal or requested by fax at 303-556-4829. Transcript request forms are available at www.ucdenver.edu/student-services/resources/registrar/; click on Forms.

Requests must include the following:

- student's full name (include given or other name if applicable)
- student number
- birth date
- the last term and campus the student attended

- agency, college or individuals to whom transcripts are to be sent (Complete mailing addresses should be included; transcripts sent to students are labeled “issued to student”)
- student’s signature (This is the student’s authorization to release the records)

There is no charge for individual official transcripts (however fees are assessed for rush service). Transcripts are prepared only at the student’s request in writing or online through the UCD Access portal. A student with financial obligations to the university that are due and unpaid will not be granted a transcript. Official transcripts require seven to ten working days for processing. Rush service is available and fees are assessed based on the service requested.

Notification of Rights Under FERPA at University of Colorado Denver

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their educational records:

1. The right to inspect and review the student’s educational records within 45 days of the day that the university receives a request for access. Students should submit to the registrar, dean, head of the academic department or other appropriate official written requests that identify the record(s) they wish to inspect. The university official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the university official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student’s educational records that the student believes are inaccurate or misleading. Students may ask the university to amend a record that they believe is inaccurate or misleading. They should write the university official responsible for the record, clearly identify the part of the record they want changed and specify why it is inaccurate or misleading. If the university decides not to amend the record as requested by the student, the university will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to consent to disclosure of personally identifiable information contained in the student’s educational records, except to the extent that FERPA authorizes disclosure without consent. One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the university in an administrative, supervisory, academic or research or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the university has contracted (such as an attorney, auditor or collection agent); a person serving on the board of trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an educational record in order to fulfill his or her professional responsibility. Upon request, the university discloses educational records without consent to officials of another school in which a student seeks or intends to enroll.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University of Colorado to comply with the requirements of FERPA.

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-4605

The following items are designated “Directory Information” and may be released at the discretion of the University of Colorado Denver unless a student files a request to prevent their disclosure:

- name
- address
- e-mail address
- telephone number
- dates of attendance
- registration status
- class
- major
- awards
- honors
- degrees conferred
- photos
- past and present participation in officially recognized sports and non-curricular activities
- physical factors (height, weight) of athletes

Forms to prevent the disclosure of directory information can be obtained at the Student Service Center in North Classroom, 1003, or via the registrar’s Web site at <http://www.ucdenver.edu/student-services/resources/registrar/>. Questions regarding student rights under FERPA should be directed to the registrar’s office, 303-556-2389.

Campus Life

The University of Colorado Denver, Denver Campus is physically located on the 151-acre Auraria Campus, which is shared with two other institutions—Metropolitan State College of Denver and Community College of Denver. Because we share facilities, our students have access to the level of resources found at much larger public universities. Since fall 2006, the university has also been able to offer student housing adjacent to this traditionally commuter campus. Details about the campus and Campus Village are explained in this chapter.

Auraria Campus

Since opening in 1976, Auraria has become the largest campus in Colorado, enrolling nearly 50,000 students—20 percent of all the students in public higher education in the state. This is

the most efficiently utilized campus in the state. Classrooms on the Auraria Campus are used an average of 50+ hours per week. Classes are held from 8 a.m. to 10 p.m. Monday through Thursday and from 8 a.m. to 6 p.m. on Friday, Saturday and Sunday. Some courses and programs are offered cooperatively by the Auraria educational institutions. Those pertaining to CU Denver students are outlined in this catalog.

The Auraria Campus offers numerous amenities to students, faculty and staff, from the largest bookstore in the Rocky Mountain region to a state-of-the-art fitness facility. Details of these amenities are outlined in this chapter.

In addition to its proximity to the thriving business and industry of downtown Denver, the Auraria Campus has a distinct historic flavor. The Tivoli Student Union is housed in a renovated brewery originally built in the 1860s. Historic Ninth Street Park, St. Cajetan's Church/Performing Arts Center, St. Elizabeth's Church, the Emmanuel-Sherith Chapel/Synagogue/Art Gallery and the Golda Meir House Museum are also located on campus.

Auraria Higher Education Center

The Auraria Higher Education Center (AHEC) is the administrative body that coordinates the facilities, services and activities for the three educational institutions on campus. AHEC provides common services for the campus including: classroom scheduling, facilities services and construction, campus police, telecommunications infrastructure, student union, media services, book store, early learning center, parking and transportation, mail services and facilities master planning. Visit their website for additional information.

Campus Amenities

Auraria Campus Bookstore

Location: Tivoli Student Union, 900 Auraria Parkway

Hours: Mon.–Thurs., 8 a.m.–6 p.m.; Fri. 8 a.m.–5 p.m.; Sat. 10 a.m.–3 p.m.; call for hours during vacation and interim periods

Telephone: 303-556-4286

Website: www.aurariabooks.com

The Auraria Campus Bookstore, a department of Student & Auxiliary Services—*your campus store*—is located in the historic Tivoli Student Union. The bookstore provides textbooks for the Auraria schools, plus a complete general book department that is especially strong in technical and reference areas. Best sellers, new releases and gift book selections change frequently and are often accompanied by displays of special value books on many subjects.

Students need to bring course printouts to locate textbooks. Books are located by school; subjects are arranged alphabetically—departmental abbreviations, with course and section numbers—and prices are printed on the shelf tag below. Each title has the designation of *required*, *preferred*, *optional* or *available*. You can also buy books online at www.aurariabooks.com and have them shipped to your home, or you may pick them up in person.

The Auraria Campus Bookstore carries more used textbooks than any other bookstore in Colorado, but shop early as used books are the first to go. A full refund is given for new and used books accompanied by the receipt and returned within the *first two weeks* of class for regular semesters and two days from the first day of class for short terms.

Please read the refund policy on the back of the receipt.

When a course ends, the textbook may still have value and may be bought back by the bookstore. The buy-back policy on used texts is to pay half of the new price on books that will be used again next semester on this campus. Other texts are purchased at lower percentages. The Auraria Campus Bookstore's buy-back services are dedicated to its student customers. A validated Auraria student ID is required to complete a buy-back transaction. Books are bought for the campus throughout the semester; however, buyers from national textbook companies are on hand at the end of each semester to purchase used books that may be required at other schools.

Campus Computers, 303-556-3726, offers the latest in hardware and software technology and is an authorized Apple Campus Store. An educational discount is offered to Auraria Campus students; a current, validated Auraria ID must be presented at the time of purchase. A full line of computer reference books and accessories are also available, as well as calculators and other small electronics. Campus Computers' is located on the second floor of the Auraria Campus Bookstore.

A current photo ID is required for purchases paid for by check. The bookstore also accepts MasterCard, VISA, American Express and Discover.

The Auraria Campus Bookstore is owned by the State of Colorado and supports the Auraria Student Bond Fund.

Auraria Early Learning Center (Child Care Center)

Location: West Colfax and Ninth Street Park

Hours: Mon.–Fri. 7 a.m.–6 p.m.

Telephone: 303-556-3188

Website: www.ahec.edu/earlylearning

The Auraria Early Learning Center serves the child care needs of Auraria's students, staff and faculty by providing high-quality early childhood education and care programs. The Auraria Early Learning Center is located at the south end of 9th Street Park. Its programs are consistently recognized by the educational community for their high-quality early childhood care and education. Developmentally appropriate practices for young children guide the educational programs that are provided. Curriculum planning is flexible and based on children's interests.

Supervising teachers in the Auraria Early Learning Center are all degreed teachers meeting the certification guidelines of the State of Colorado and of the National Academy of Early Childhood programs. Children aged 12 months to 5 years are served at the center. The center also has a fully accredited kindergarten program.

Auraria Event Center/Student Recreation Center

Location: 1255 Tenth Street Mall

Telephone: 303-352-4371 (fitness center); 303-556-3210 (recreation); 303-556-2755 (events)

Website: www.msudenver.edu/~cra

The Auraria Campus PE/Event Center is a 2,800-seat facility for team and individual sport activities, academic programs, events and conferences. Funds from student recreation fees support the use by students of the many health and recreation facilities found within the building. Adjacent to the building are softball fields, tennis courts and a track.

Auraria Library

University Librarian/Director: Mary M. Somerville

Associate University Librarians/Directors: Meg Brown-Sica, Marical Farner, Cynthia Hashert, Denise Pan

Location: 1100 Lawrence Street, Denver, CO 80204-2041

Telephone: Directory and Hours: 303-556-2740

Ask Us Desk: 303-556-2639

Research Help: 303-556-2585

Website: <http://library.auraria.edu>

Faculty

Professor: Mary M. Somerville, MLS, University of Hawaii Manoa, MA, Goddard College, PhD, Union Institute and University

Associate Professor: Jeffrey Beall, MA, Oklahoma State University, MSLS, University of North Carolina at Chapel Hill; Ignacio Ferrer-Vincent, MLIS, University of Denver, PhD, University of Miami; Ellen Greenblatt, MA, University of Denver

Assistant Professors: Meg Brown-Sica, MS, University of South Florida; Denise Pan, MLS, San Jose State University, MA, University of Colorado Boulder; Karen Sobel, MLS, University of North Carolina

Senior Instructors: Orlando Archibeque, MA, University of Denver; Eric Baker, MLS, Indiana University; Thomas J. Beck, MLS, Emporia State University; Gayle Bradbeer, MLS, Emporia State University, MS, University of Arizona; Lorraine Evans, MLS, University of Maryland; Vera Gao, MLS, University of South Carolina; Cynthia Hashert, MLS, North Texas State University; Elaine Jurries, MA, University of Minnesota; Nikki McCaslin, MA, University of Denver; Ellen Metter, MS, Drexel University; Linda Tietjen, MA, University of Denver; Diane Turner, MLS, University of Pittsburgh; Judith Valdez, MLS, Emporia State University

Instructors: Rosemary Evetts, MLS, Indiana University

About the Auraria Library

The Auraria Library proudly offers a wide range of learning resources, research services, and study environments to support discovery, exploration and academic programs. Whether you are looking for a quiet place to read and reflect, a place to share a cup of coffee with classmates while working on a group project, a source of authoritative academic information, or a computer-enabled collaborative work room, the library offers a variety of options to meet your needs. In general, the first floor of the library is dedicated to collaborative learning and research, and the second floor is devoted to quiet study and collections.

Discover What We Offer

The Auraria Library collection contains nearly a million volumes of print books and ebooks, subscribes or links to more than 65,000 journals, and offers in-house and online films. The library also provides access to federal publications and Colorado state documents. This collection is supplemented by access to other libraries within the state and across the nation through interlibrary loan services.

Explore our Electronic & Print Materials

The library provides on- and off-campus access to a wide variety of electronic and print materials via the library's home page (<http://library.auraria.edu>). Nearly 300 databases provide access to full-text articles, journal citations, statistics, laws, and business data in a multitude of disciplines.

Ask Us

When in doubt, visit the Ask Us Desk for assistance with basic research questions, to borrow items for a class (Course Reserves) or from the Library's collection, or to pick up requested materials from regional libraries (Prospector) or national libraries (Interlibrary Loan). Use the self-check out machines to expedite borrowing library books. For more in-depth research inquiries, you may be referred to the Research Help desk. We welcome walk-in, telephone, and online questions via email and instant message. You may also schedule an appointment with one of our knowledgeable librarians for a one-on-one consultation.

Learn Critical Research Skills

Throughout the semester, students have the opportunity to gain essential skills needed to conduct scholarly research through classroom sessions, online tutorials, specialized workshops, and personal consultations. During individual and classroom learning experiences, discover powerful library search tools and web-based resources that inform research papers, support class projects, and provide career information.

Use our Technology

The library offers technology resources including computers, scanners and printers. The Tech Help Desk assists with troubleshooting hardware and software computer problems. Photocopiers, microform reader/printers, a copy center, and study rooms are also available.

Disability Services

The library is committed to making its resources and services available to all students. We will assist with orientation of the physical layout of the building and with the retrieval of materials. Please visit the Ask Us Desk to obtain assistance or contact Judith Valdez, the disability services librarian, directly by email at ALAccessible@ucdenver.edu or by phone at 303-556-4999. The Disability Services webpage (<http://library.auraria.edu/services/disability/services>) also offers more information about our services and resources.

Auraria Media Center and Classroom Support

Location: 1100 Lawrence Street (East side of the Auraria Library), O15

Telephone: 303-556-2426

Website: <http://mediacenter.ahec.edu>

The Auraria Media Center and Classroom Support Services offers a full range of media services and classroom support:

- distance learning technologies including video conferencing, webinars, audio conferencing, video over IP and ISDN and videotaping of course delivery
- circulation of a wide range of audio, video and data (AVD) presentation equipment for one-time use
- long-term classroom equipment check-out
- production of content on digital tape, DVD, CD and videotape by an award-winning staff using state-of-the-art digital editing, graphics and animation systems
- quantity duplication of DVD, CD, audio and videotape media
- equipment maintenance and repair
- equipment/systems consultation and installation

The Auraria Media Center's 34-channel closed-circuit campus cable system can be used in the classroom to broadcast channels such as CNN, MSNBC, History, Discovery, A&E, PBS, CSPAN, NASA and local television networks. One channel is dedicated to and managed by each institution for distribution of programming of their choice.

Auraria Media Center staff are available to train faculty in the use of equipment in "smart" classrooms on campus and offer consulting services to faculty and other clients in such areas as media design and production, effective use of media types and effective use of distance learning technologies, effective use of those technologies and equipment selection to best meet instructional needs.

Auraria Media Center and Classroom Support Services will handle all of your classroom needs regarding furniture, projector screens, whiteboards, smart classroom equipment and ADA furniture placement.

Emmanuel Gallery

Curator: Shannon K. Corrigan

Location: 1205 Tenth Street Mall

Hours: Tues.–Fri. 10 a.m.–6 p.m.; Sat. 11 a.m.–5 p.m.

Telephone: 303-556-8337

Website: www.emmanuelgallery.org

Emmanuel Gallery is a tri-institutional, nonprofit art facility committed to enhancing the understanding of the visual arts. Through the presentation of high-quality art exhibits, lectures and events our purpose is to encourage critical thinking, creative research and training in gallery practices. Programs at Emmanuel Gallery promote excellence, education and enrichment to the diverse cultural community of the Auraria Campus and the Denver metropolitan area.

Health Center @ Auraria**Location:** Plaza Building, 150 (lower level)**Hours:** Vary (see below)**Telephone:** 303-556-2525**Website:** www.msudenver.edu/healthcenter

All Denver Campus students are entitled to medical services at the Health Center @ Auraria, and student health insurance is NOT required to use this facility. The Health Center is approved to provide emergency triage care to persons covered by Medicare and/or Medicaid. Other medical conditions will be referred to approved Medicare /Medicaid providers. Physicians, physician assistants, nurse practitioners, radiological technologists and medical assistants staff the facility. Students will be asked to complete a sign-in sheet and show a current semester ID card each time they check in.

Services include:

- treatment of illness and injuries
- lab testing
- medications
- physicals
- annual GYN exams
- sexually transmitted disease information/testing
- birth control information/services
- minor surgery
- immunizations
- HIV testing
- blood pressure checks
- casting
- suturing
- X-ray

All services listed above are low cost. The Health Center is an “in-network” medical provider for Blue Cross/Blue Shield (BC/BS) insurance plans (including out-of-state plans) and for all college-sponsored student health insurance plans. Patients participating in any of these plans simply pay their applicable co-payments at the time of service. Charges will be submitted by the Health Center directly to the insurance company. Patients not enrolled in one of the above plans are also eligible for services, but are required to pay at time of service. Classes regarding health-related topics are taught each semester and are offered free to all students. Scheduled and walk-in appointments are available. Walk-in services begin at 8 a.m., Monday – Friday. Access is on a first-come, first-served basis. Walk-in varies daily, contingent upon when all patient slots have been filled; thus, the daily closure time for walk-in care is variable. Patients are encouraged to check in as early as possible. Brochures with additional information are available at the Health Center.

King Academic and Performing Arts Center

Location: 855 Lawrence Way

Telephone: 303-556-2179

Website: www.ahec.edu/kingcenter

The King Center houses six performing spaces: three permanently assigned production studios, a 197-seat recital hall; 520-seat concert hall; and the 168-297 seat (depending on stage configuration) Eugenia Rawls Courtyard Theatre. There are dressing rooms, green room, recording studio, lighting lab, music electronics lab, classroom space, box office, scene shop, paint shop and costume shop. All spaces are fully equipped with state-of-the-art equipment and a variety of spaces for exhibiting fine art. The entire facility has more than 180,000 square feet dedicated to the education of the student and development of the student who wishes to study performance/arts. The center can support many forms of entertainment, anywhere from legit theatre to large choral ensembles and other forms of performances.

Tivoli Student Union

Location: 900 Auraria Parkway (Ninth and Auraria Parkway)

Telephone: 303-556-6330

Website: www.ahec.edu/tivoli/

The Tivoli Student Union, managed by Auraria Student & Auxiliary Services, provides a wide variety of services for the Auraria community. The student union houses student government and student life offices, two credit unions and tri-institutional services such as the GLBT student services.

If you want a break or a quiet place to study, the Tivoli Student Union is just the place. With a food court, coffeehouse, deli and convenience store, you'll find a place to suit your appetite, schedule and budget. If you'd rather retreat than eat, you can watch plasma TVs in the Boiler Room Student Lounge, play a game of pool at Sigi's Pool Hall and Arcade, meet a study group in the multicultural lounge or study in total silence in the Garage Quiet Study Lounge.

Additional student services at the Tivoli Student Union include the Auraria Campus Bookstore, the Club Hub, Click's! Copy Center, event services and the ID program and Commuter Resource Center.

Club Hub

Suite 346, 303-556-8094

This uniquely designed club space on the third floor of the Tivoli features work space for more than 60 clubs, mailboxes for campus clubs, a limited number of lockers, club bulletin boards and a lounge area for group meetings. This office works closely with the Student Advisory Committee to the Auraria Board (SACAB) and the student activities/life offices.

Auraria Campus Event Services

Suite 325, 303-556-2755

Through the event services office, meeting and conference space at the Tivoli Student Union, Event Center, St. Cajetan's and outdoor spaces can be reserved for nonacademic purposes, including meetings, weddings and receptions. Events services has five caterers to choose from for all catering needs.

Campus ID Program/Commuter and Housing Resources

Suite 269, 303-556-8385

Auraria staff, faculty and students go here to get their campus ID cards, which are necessary for parking in some campus lots and for checking out library books. Student IDs also serve as an RTD bus and light rail pass with a semester validation sticker. The center provides off-campus housing resources, RTD bus information, campus and Tivoli information, lost and found and a microwave oven.

Sigi's Pool Hall and Arcade

Suite 145, 303-556-3645

Sigi's, named after Tivoli Brewery founder Moritz Sigi, houses 15 video game machines and six billiard tables. Sigi's is open to the entire Auraria Campus population as well as the public. The student-friendly atmosphere encourages community socialization and relaxation.

Student Housing

University Policy and Support: Tivoli Student Union, 227

Telephone: 303-556-2444

E-mail: housing@ucdenver.edu

Website: www.ucdenver.edu/life/services/student-assistance/housing/Pages/default.aspx

Leasing and Payment Options: Campus Village Apartments , 318 Walnut Street

Telephone: 303-573-5272

E-mail: mgrdenver@edrtrust.com

Website: www.campusvillageliving.com

The University of Colorado Denver, Denver Campus, has a live-in requirement for first-time undergraduate students

Benefits of living on-campus

Research has shown that living in student housing during the first year has numerous benefits for students both academically and socially. Students who live on-campus their first year experience:

- Higher graduation rates than students who live off campus.
- A higher level of satisfaction with their college experience.
- A higher level of involvement in clubs and activities on campus.

- More frequent interaction with faculty members and peers.

Live-in Policy

The University of Colorado Denver is a residential campus, and all first-year students live in the Campus Village Apartments at Auraria. No other apartments or buildings meet the live-in policy requirement. First-year students live together in a dedicated wing of Campus Village. This wing includes the following additional amenities:

- Additional Staff – This wing of the complex will have a higher ratio of staff to students to help provide additional support, guidance and resources for first-time students.
- Special Programming – Many of the programming efforts sponsored by the university will be taking place in the first-year student wing of Campus Village. Programs will focus on study skills, navigating the university and community, living with a roommate and a variety of other topics.
- Connections with other first-year students - First-year students share many of the same challenges and anxieties as they begin their college careers. Living in a community of students going through the same types of experiences provides a built-in support network and can lead to lasting friendships.

Exemptions

First-time freshman students wishing to live with their parent(s) or legal guardian(s) or who qualify under at least one of the exemptions listed below must submit the "Exemption Form" to be considered for exception from the live-in policy. Exemptions to this policy will be evaluated and made on a case-by-case basis. For further information, please contact the Office of Student Life at 303-556-3399 or via e-mail at housing@ucdenver.edu.

Exemptions to the first-time freshmen live-in requirement:

1. You will be living at home with parent(s) or legal guardian(s).
2. You are a veteran of the armed forces.
3. You are married or a parent with dependent(s).
4. You are a part-time undergraduate student enrolled for less than 10 credit hours per semester.
5. You are deemed medically excusable by the Office of Community Standards and Wellness (must be supported in writing by a doctor and with appropriate medical documentation).
6. You are over 21 years of age.
7. All other requests will be evaluated on a case-by-case basis.

Exemptions be evaluated and made on a case-by case basis. Exemption forms are available through the Office of Community Standards and Wellness, Tivoli Student Union, 259, or online at www.ucdenver.edu/life/services/housing/prospective-students/1st-year-students/Pages/Exemptions.aspx. For further information, please contact the Office of Community Standards and Wellness at 303-556-2444 or via e-mail at housing@ucdenver.edu.

Campus Village Frequently Asked Questions

Amenities

At Campus Village at Auraria, students will find a community to support their academic and personal interests. It's convenient, comfortable and affordable. Features include:

- apartment-style living with kitchenettes or full kitchens for all students
- lease rates that include heating, cooling, electricity, water, cable and high-speed Internet service
- on-site tutoring and academic support
- a variety of floor plans (from individual studios to four bedroom apartments) to meet the needs of all students
- individual lease agreements for shared units
- fully furnished apartments
- various affordable meal plans

Diagrams of floor plans, details about meal plans, pricing, applications and exemption forms are available on the website at www.campusvillageliving.com.

Important Dates and Information

May 15, 2012: CU Denver First-Year Student Priority Deadline

Freshman students are required to live in Campus Village for two academic-year semesters but this policy is subject to availability of space. Most residence hall assignments are made on a first-come, first-served basis, so you are encouraged to apply for housing as soon as possible after you confirm your enrollment.

Payment and Billing

Campus Village housing and dining fees will be billed to your CU Denver student account. If you receive financial aid, your award(s) will be credited directly to your student account. Financial aid awards are used to pay your tuition and fees first; any remaining award(s) are then used to pay your housing charges. You are responsible for any and all charges not covered by financial aid and scholarships. You must provide Campus Village with proof/verification of funds by September 15, 2010.

Campus Safety

The University of Colorado Denver places a priority on the safety and security of its faculty, staff, students and visitors. Please visit the [University Policies](#) chapter of this catalog for additional information related to campus safety.

Emergency Notification System

The Emergency Notification System allows students, faculty and staff to register to receive alerts about threats of imminent danger at or near any CU Denver location. This service is used in conjunction with other communication channels including: public address systems, broadcast e-mail and voice-mail messages to campus telephone extensions, electronic signage, a coordinated use of public media outlets and 24-hour recorded emergency and information hotlines (Denver/Auraria Campus 303-556-2401; Anschutz Medical Campus in Aurora 303-724-4636).

Participants can receive various notifications including text messaging, e-mail and phone calls. Visit the [CU Denver website](#) for details.

Auraria Police Department

Office: Administration Building, Suite 110

Telephone: 303-556-5000 (Police Dispatch)

Emergency: 911 from a campus phone or 303-556-5000

Website: www.ahec.edu/police

On the Denver Campus, CU Denver works with the Auraria Police Department to ensure campus safety. The Auraria Police Department provides campus law enforcement services 24 hours a day, seven days a week including:

- security patrols, bicycle patrols and foot patrols
- crime prevention programs
- night escorts to a vehicle
- vehicle unlocks
- informational services

Auraria Police fulfill the campus responsibilities for reporting crime as required by the Clery Act. Clery statistics are available online at www.ahec.edu/campuspolice/ucd-clery.pdf.

Student Right To Know and Disclosure Information

Crime Statistics

In compliance with the federal Student Right-to-Know and Campus Security Act, the Auraria Campus publishes crime statistics on campus in the [Auraria Campus Clery Report](#). In an emergency, please contact Auraria Campus Police at 303-556-5000 or dial 911 from a campus phone.

Persistence and Completion Data

Section 103 of Title 1 of Public Law 101-542 as amended by Public Law 102-26 (the Federal “Student Right-to-Know” Act) requires that institutions produce and make available to current and prospective students the completion rate of first-time, full-time, degree-seeking undergraduate students entering the institution. Six years after entering, 43 percent of the fall 2003 cohort graduated, another 13 percent transferred to other public higher education institutions in Colorado and 15 percent were still enrolled at the Denver Campus for a total six-year combined persistence and completion rate of 71 percent.

CU Denver's one-year fall-to-fall retention rate is 70 percent for the fall 2008 cohort. That is, of the first-time, full-time, degree-seeking undergraduate students who entered the university in fall 2008, 70 percent were enrolled at the Denver Campus in fall 2009.

Riot Law (Student Riot Bill)

Student enrollment-prohibition-public peace and order convictions: 1) No person who is convicted of a riot offense shall be enrolled in a state-supported institution of higher education for a period of 12 months following the date of conviction; 2) a student who is enrolled in a state-

supported institution of higher education and who is convicted of a riot offense shall be immediately suspended from the institution upon the institution's notification of such conviction for a period of 12 months following the date of conviction, except that if a student has been suspended prior to the date of conviction by the state-supported institution of higher education for the same riot activity, the twelve month suspension shall run from the start of the suspension imposed by the institution; 3) nothing in this section shall be construed to prohibit a state-supported institution of higher education from implementing its own policies and procedures or disciplinary actions in addition to the suspension under (2) of this section, regarding students involved in riot.

Sex Offender Information (Campus Sex Crimes Prevention Act)

Sex offenders are required to list the locations of all institutions of post-secondary education where he or she volunteers or is enrolled or employed. The Colorado Bureau of Investigation maintains a database identifying all such persons and makes it available to all law enforcement agencies in which jurisdiction the institution of postsecondary education is located. The campus community can obtain this information by contacting the Auraria Police Department at 303-556-5000.

Voter Registration (National Voter Registration Act)

In compliance with the National Voter Registration Act, the state of Colorado voter registration application form and information is available online at www.sos.state.co.us/pubs/elections or www.fec.gov/votregis/vr.shtml.

Student Services

Academic Success and Advising Center

Office: North Classroom, 2024

Telephone: 303-352-3520

Website: <http://www.ucdenver.edu/life/services/asac/advising/Pages/default.aspx>

Academic advising is the foundation of a successful college experience and an important component in both choosing a major and career planning. The Academic Success and Advising Center (ASAC) assists students in the development of meaningful educational plans that will be compatible with their aspirations. This office serves as the first point of contact and provides academic advising for students who are prebusiness, preengineering, nondegree and undecided in the College of Liberal Arts and Sciences and all freshmen and undecided in the College of Arts & Media. Students assigned to the ASAC meet with an advisor every semester to plan a schedule, discuss academic support services and assist with referrals to other on-campus resources. In addition, the center provides general information and resource referrals to all students.

New student orientation for freshman/first year students is coordinated through the ASAC. Fall and spring welcomes for transfer, nondegree and graduate students are also coordinated through the center.

American Indian Student Services

Office: North Classroom, 2013

Telephone: 303-556-2860

Website: www.ucdenver.edu/life/services/studentlife/Pages/StudentLife.aspx

The American Indian Student Services program provides access and educational opportunities to American Indian students through specialized recruitment and retention efforts. The program provides academic advising, scholarship information, cultural programs, advocacy, student organization sponsorship and other supportive services tailored to the specific needs of the students. American Indian Student Services also serves as a resource to the campus, providing current information on issues and concerns of the American Indian community.

Asian American Student Services

Office: North Classroom, 2014

Telephone: 303-556-2578

Website: www.ucdenver.edu/life/services/studentlife/Pages/StudentLife.aspx

Asian American Student Services serves as a resource to the campus and community. The office seeks to support student success by providing services in an welcoming environment, which include:

- academic advising
- scholarship information
- cultural programming
- advocacy
- resource information
- student leadership development opportunities

Black Student Services

Office: North Classroom, 2010

Telephone: 303-556-2701

Website: www.ucdenver.edu/life/services/studentlife/Pages/StudentLife.aspx

The Black Student Services program provides access, educational opportunities and information to students through specialized recruitment and retention efforts. The program provides academic advising, scholarship information, cultural programs, advocacy, student organization sponsorship and other supportive services tailored to the specific needs of the students. Black Student Services also serves as a resource to the campus, providing current information on issues and concerns affecting the community.

Campus Assessment, Response and Evaluation (CARE) Team

The Career Center

Office: Tivoli Student Union, 267

Telephone: 303-556-2250

Website: www.ucdenver.edu/life/services/careercenter/Pages/default.aspx

The Career Center offers a full array of services that prepare students for the transition from college to career. Students are encouraged to participate in career-related programs and services as early as their first year to gain skills and experience necessary to be successful upon graduation. Services are also available to alumni at no cost for up to 12 months after graduation and for a small cost after 12 months. **New this year!** All CU Denver alumni have unlimited access to job postings on the Just ASK! Job Link at no cost during 2013.

The Career Center's brand is **Just ASK! Assess Search Knock!**

- **ASSESS:** Understand and leverage abilities, skills, personality, values, and interests to choose the right academic major or to determine a career direction.
- **SEARCH:** Prepare for job search by creating industry awareness, learning job-search strategies, and developing career materials (i.e. résumés, cover letters, and CV's).
- **KNOCK:** Connect with employers through services including: interview skill coaching, mock interviews, résumé referrals, on-campus interviews, career fairs, employer presentations, networking events, and the Just ASK! Job Link.

Just ASK! is designed to complement students' educational programs and to help students achieve their career goals.

Commuter Services and Off-Campus Housing

Community Standards and Wellness

Location: Tivoli Student Union, Suite 227

Telephone: 303-556-2444

Websites: www.ucdenver.edu/life/services/standards/wellness/Pages/default.aspx;
www.ucdenver.edu/life/services/standards/Pages/default.aspx;
www.ucdenver.edu/life/services/housing/Pages/default.aspx;
www.ucdenver.edu/life/services/housing/commuter-services/Pages/default.aspx

The Office of Student Conduct and Community Standards serves as a resource to the entire university community through its efforts to meet the developmental and educational needs of students related to community expectations, civility and respect for self and others. We function to support community members with conflict management and resolution and by responding to inappropriate behaviors. We provide student-centered educational services, which promote personal development and individual responsibility. We strive to create a dynamic, open and just environment where civility, cultural competence and learning are expected and celebrated.

Overall Office Goals

- To develop, disseminate, interpret campus policies and procedures related to community standards and expectations
- Protect the rights of students in the administration of the student conduct program
- Respond to student behavioral concerns in a fair, reasonable and efficient manner
- To promote a campus environment that encourages dialogue, mutual respect and cultural sensitivity
- Initiate and encourage educational activities that serve to reduce violation of campus regulations and increase the health and wellness of the campus community
- To foster collaborative partnership that allow for a holistic approach to supporting and developing healthy, engaged and productive students and citizens

Disability Resources and Services Office

Location: North Classroom, 2514

Telephone: 303-556-3450

TTY: 303-556-4766

E-mail: DisabilityResources@ucdenver.edu

The Office of Disability Resources and Services (DRS) is committed to providing equal opportunities and fostering the personal growth and development of students with disabilities. The DRS staff strive to meet the needs of a large and diverse community of students with disabilities. We are available to provide assistance and to arrange for reasonable accommodations that will address specific educational needs.

Accommodations may include but are not limited to the following:

- priority registration for classes
- assistance in identifying volunteer note takers

- alternative testing (private room, additional time, reader/scribe)
- alternate textbook formats (scanned, enlarged print, Braille)
- interpreter services or captioning services

ESL Academy

The University of Colorado Denver's English as a Second Language (ESL) Academy offers a rich diversity of academic, social, and cultural learning opportunities and is located in a newly renovated space right along 16th Street Mall in the heart of downtown Denver.

The Academy offers high-quality, year-round ESL instruction specifically designed for university preparation. The curriculum helps students improve their language skills through a rigorous program of study, campus involvement, and cultural and educational activities. **Important: the ESL Academy does not accept beginners. There are no beginner classes. If you are a beginner, please apply later, when you have at least four months of learning English.**

Our program offers the following distinctive advantages when compared against other programs:

- The curriculum is designed especially for university-bound students. In addition to mastering academic English, students will learn how to succeed academically at the University of Colorado Denver.
- Students in the ESL Academy will be considered University of Colorado Denver students. They will be on the university campus from day one of our program and will be eligible to live in university housing, though there will be limited available for students who join our program mid-term.
- Students will have access to all of the activities and resources that the university has to offer, not to mention the spectacular outdoors and urban life in Denver and Colorado.
- Students may be allowed to take one or two regular academic courses that count towards fulfillment of CU Denver degree requirements once they achieve a measure of English proficiency.
- When a student completes the ESL Academy successfully, s/he will automatically fulfill the University of Colorado Denver's English language proficiency requirement and will be eligible for full admission.
- Students will be issued a Form I-20 from the University of Colorado Denver for a seamless immigration experience and will not have to transfer their immigration status to begin their degree program upon complete of the ESL Academy.
- Students will benefit from a seamless transition to university degree programs after they successfully complete the ESL Academy, thus maximizing the prospects of their success.

For full details, visit the ESL Academy online at esl.ucdenver.edu. Here, students can get information about:

- The online application

- Program information
- Tuition and Fees
- International Student Services

If you have additional questions you may send an email to esl@ucdenver.edu or call 303.315.2383.

Experiential Learning Center (Internships, Service and Research)

Director: Tony R. Smith

Office: Tivoli Student Union, 260

Telephone: 303-556-6656

Website: www.ucdenver.edu/life/services/ExperientialLearning

Live your learning at CU Denver! Students have many opportunities to explore academic fields through direct experience including internships, service in the community, undergraduate research and international experiences. Connect your academic experiences and learning to the real world by putting your knowledge into practice. You will develop new skills, grow personally and professionally and enrich your academic experience.

INTERNSHIPS (Academic and Not-For-Credit)

Hundreds of CU Denver students engage in degree-related work experiences with corporations, government and nonprofit agencies in the Denver-metro area and around the world. Students can earn academic credit, pay or both while gaining relevant experience related to their career interests.

COMMUNITY ENGAGEMENT

Students gain a better understanding of community issues, develop practical skills and make a difference in the world around them when they engage in service activities. From the first-year experience course to senior capstone classes, faculty weave service projects into their courses, giving students a wider view of the world. These service learning experiences vary in length of time, but the impact is always transformational. Many volunteer opportunities that connect students with the local, national and international communities are also available through the center. Students can also earn AmeriCorps education awards for service.

UNDERGRADUATE RESEARCH

Whether assisting faculty with research or pursuing their own research under faculty supervision, CU Denver students can experience what it means to be involved in the creation of knowledge. Students may apply for research grants through the Undergraduate Research Opportunities Program (UROP) and showcase their research projects at the annual *Research and Creative Activities Symposium*. The Experiential Learning Center provides resources for myriad of opportunities to CU Denver students.

Gay, Lesbian, Bisexual, Trans (GLBT) Student Services at Auraria

Office: Tivoli Student Union, 213

Telephone: 303-556-6333

Website: www.glbttss.org

Gay, Lesbian, Bisexual, Transgender Student Services is open to all Auraria Campus students as a resource for exploring sexual orientation or gender identity issues. This program offers a variety of support, education and advocacy services for the entire campus community:

- support for those who may have questions about their own sexual orientation/gender identity or that of a friend or family member
- advocacy for students experiencing discrimination or harassment based on a real or perceived GLBT identity
- speakers for events, workshops and classes on various aspects of sexual orientation and gender identity
- programs and workshops about working with the gay, lesbian, bisexual and transgender communities
- resource library of 500 books and 90 videos (documentary and cinema) available for research and leisure, as well as a multitude of free literature regarding other organizations and services throughout Denver and Colorado that provide outreach, services and advocacy
- programs such as Speakers Bureau and other forums providing information and dialogue about GLBT issues

The GLBT Student Services office is staffed by a director with the support of student employees and volunteers. Input and involvement from the entire campus community are welcomed.

Global Education, Study Abroad

Director: John Sunnygard

Telephone: +1-303-315-2230

Website:

ucdenver.edu/academics/InternationalPrograms/OIA/StudyAbroad/Pages/StudyAbroad_GlobalEducation.aspx

Global Education is the university's central office that supports all students seeking to internationalize their education and gain professional preparation to more effectively serve and compete in a global world. The office advises and prepares students, faculty and staff to safely navigate the full range of global academic and learning opportunities. Global Education has a network of study abroad programs, international internship, volunteer and service learning opportunities in more than 80 countries. Graduate, professional and undergraduate students from both campuses also conduct international research also benefit from Global Education's support services.

The Semester in Beijing semester program is of particular interest to communication, economics, math and international studies students. Students from Denver and China study together on our partner campus at China Agricultural University in Beijing. Students take

English-taught CU Denver courses for CU Denver credit. The program cost is the same as studying in Denver, with several scholarship opportunities to further reduce the price.

Study abroad programs are offered in a variety of terms, costs and disciplines to suit the full spectrum of CU Denver students. Students may choose to immerse themselves in a more traditional academic year or semester program abroad; or to conduct research on field studies sites. Many students chose to study for credit with CU Denver faculty on one of the many affordable, focused Global Study programs over winter break, Maymester or summer.

While many students study abroad to learn or perfect language skills, most students participate in English-taught programs in non-English and English-speaking countries. Either CU Denver or transfer credit may be earned on approved programs abroad, giving students the opportunity to fulfill degree requirements while living, learning and growing in another culture.

We make every effort to keep global educational opportunities affordable for all CU Denver students. Additionally, scholarships and financial aid may be available depending upon the program and location. Information and advice on scholarships such as Fulbright, NSEP, Gilman and others is also available. For the most current information on programs, policies and the benefits of global education, please visit the Global Education website at ucdenver.edu/academics/InternationalPrograms/OIA/StudyAbroad/Pages/StudyAbroad_GlobalEducation.aspx.

Hispanic Student Services

Office: North Classroom, 2012

Telephone: 303-556-6209

The Hispanic Student Services program provides access and educational opportunities to Hispanic students through specialized recruitment and retention efforts. The program provides academic advising, scholarship information, cultural programs, advocacy, student organization sponsorship and other supportive services tailored to the specific needs of the students. Hispanic Student Services also serves as a resource to the campus, providing current information on issues and concerns of the Hispanic community.

Information Technology Services

Office: Lawrence Street Center, 1350

Telephone: 303-724-4357

Website: www.ucdenver.edu/about/departments/ITS/Pages/index.aspx

Information Technology Services (IT Services) provides central support of the telecommunications, computing and network infrastructure for the Denver Campus and the Anschutz Medical Campus. IT Services also provides computing resources such as computer accounts, e-mail, file storage, server hosting, Internet, Internet2 and National Lambda Rail.

The IT Services help desk is a single point-of-contact for reporting computer-related problems or requesting services. Faculty and staff are encouraged to contact the help desk for general questions about computing at the university.

IT Services also provides student computing services to currently enrolled students within the computer labs located in the North Classroom 1206, St. Cajetans 101 and the Tivoli 241. The computer labs have Macintosh and Windows-based computers with Internet access available for student use on a first-come first-served basis.

For more information, call the IT Services Help Desk at 303-724-HELP.

International Affairs

Assistant Vice Chancellor: Carolyn North

Courier Address: International Affairs, 1380 Lawrence Street, 9th floor, Denver, CO 80204-2029, USA

Mailing Address: International Affairs, Campus Box 185, P.O. Box 173364, Denver, CO 80217-3364, USA

Telephone: +1-303-315-2230

Fax: +1-303-315-2246

Website: www.ucdenver.edu/academics/internationalprograms/OIA/Pages/default.aspx

The Office of International Affairs (OIA) serves the university by providing administrative support, expert advice, technical services, educational programs and related services that contribute to the strategic international goals of the university. The Office of International Affairs addresses international policy issues, has oversight of international risk management protocols, serves as a resource for best practices in the internationalization of higher education, maintains central data bases pertaining to international activities of the university, advises on the development of international affiliations and agreements, assists departments/programs and schools/colleges with the development of comprehensive international strategic planning and seeks to promote and support initiatives that advance international research, education and global cooperation.

OIA serves as a resource for faculty seeking international research opportunities, provides a comprehensive list of international scholarship/fellowship information and serves as the institutional liaison for the CIES Fulbright Scholars Program. OIA provides visa and orientation services to international students and scholars, provides expertise in the development and maintenance of undergraduate, graduate and professional global education, assists with brokering and designing bilateral international educational programs and offers comprehensive international recruitment and admissions services.

The four divisions of OIA include the ESL Academy, Global Administrative Services, Global Education, International Admissions, International Student and Scholar Services, and International Colleges and Partnerships.

Graduate Student and Faculty Fulbright Information

OIA maintains listings of opportunities and other information on various scholarships and fellowships for study and research abroad, including Fulbright graduate student and faculty visiting lectureships at foreign universities.

Community Outreach Services

During the year, OIA sponsors periodic guest lectures and special seminars focused on topics of current international interest. Many of these activities are open to the public as well as the university community. OIA is also an active participant in a number of Denver community international programs and events. For more information about these and other programs, contact OIA at 303-315-2230.

International Colleges and Partnerships

Telephone: +1-303-315-2240

International Colleges and Partnerships (ICP) develops and maintains sustainable academic programs abroad to enhance the globalization of teaching and learning at the University of Colorado Denver and its partner institutions and to facilitate the discovery and sharing of knowledge between CU Denver and the world.

International College Beijing

International College Beijing (ICB) is a joint education program between the University of Colorado Denver (CU Denver) and China Agricultural University (CAU), located in Beijing, People's Republic of China. The partnership, formed in 1994, was one of the first of its kind approved by the Chinese Ministry of Education.

At ICB students can choose to earn a CU Denver bachelor of arts degree in either economics or communication on site in Beijing. Or students can choose to study in Denver to complete their undergraduate programs after a year or two of study at ICB. As courses are taught in English by CU Denver faculty, U.S. students can learn or perfect their Chinese while pursuing rigorous courses in English in their chosen undergraduate field of study alongside ICB Chinese students, fostering a truly global classroom experience.

ICB is located on the east campus of China Agricultural University in the Haidian district north of downtown Beijing. The campus is a 30-minute ride from downtown Beijing, Beijing International Airport and major cultural centers such as Tiananmen Square, the Forbidden City and the Summer Palace.

International Colleges & Partnership Staff

Rick Chaney, Director, rick.chaney@ucdenver.edu, 303-315-2240

Joanne Wambeke, Student Affairs, joanne.wambeke@ucdenver.edu, 303-315-2121

International Student and Scholar Services

Director: David Clubb

Telephone: +1-303-315-2230

The International Student Services unit provides a variety of services and programs to international students and scholars with a special emphasis on F-1 and J-1 students. The unit

provides check-in sessions, orientations, work clinics and immigration advising, and we often partner with other CU Denver departments to offer programs and events to our international student population. For more information related to immigration matters, programs and advising services for international students, please visit our website at www.ucdenver.edu/academics/InternationalPrograms/OIA/ISSS/Pages/ISSS.aspx.

Learning Resource Center

Office: North Classroom, 2006

Telephone: 303-556-2802

The Learning Resource Center is designed to promote student success in the academic setting. Available to undergraduate and graduate students, services include:

- individual and open lab (group) tutoring
- study skills courses
- study strategies seminars
- a resource library
- supplemental instruction (SI) for courses in physics, chemistry and biology
- ESL (English as a second language) support through workshops, conversation and pronunciation groups

New Student Orientation

www.ucdenver.edu/life/services/orientation/Pages/default.aspx

The New Student Orientation coordinates orientation programs for new freshmen and transfer students in the fall and spring. A welcome program is held for new graduate and non-degree students each fall and spring which provides an overview of campus resources, important deadlines and policies. Graduate students accepted into the Business School, the College of Architecture and Planning, the School of Public Affairs, the School of Education and Human Development, and the College of Engineering and Applied Science also attend specific orientation in their school or college.

Ombuds Office

Office: CU-Denver Building, 107

Telephone: 303-556-4493 or 303-315-0048

E-mail: Mary.ChavezRudolph@ucdenver.edu or Peter.Bryant@ucdenver.edu

Website: www.ucdenver.edu/about/departments/OmbudsOffice/Pages/OmbudsOffice.aspx

The Ombuds Office is available to assist students, faculty and staff. Our services are free and confidential. The Ombuds Office assists in resolving CU Denver conflicts, complaints, and disputes. Students typically use our office when facing issues that seem unfair to them or when they just don't know what to do next. Samplings of concerns are:

- * the actions of faculty, staff, or other students
- * denials of petitions
- * university decisions

- * disagreement over grades and other classroom issues
- * problems with team members working on a class project

Although we function as an independent service, we are very familiar with the CU Denver system, policies, and procedures. We can assist you in identifying and evaluating your options for dealing with issues so you can have the best chance of reaching a satisfactory outcome. We are not attorneys. We do not decide who is right or wrong nor do we sanction anyone or testify in formal proceedings. We function as consultants available to assist all members of the campus community. An ombudsperson does not advocate for any party but is an advocate for fair process. Whenever possible, we try to help people find "win-win" solutions.

An ombudsperson can also mediate disputes involving student clubs and organizations and provide conflict management training. In the academic realm, if your group project is getting nowhere because your group is experiencing conflict or communication problems, we can help you resolve those issues, as well.

Due to its informal, confidential and independent role outside the administrative structure of the university, notice to the ombudsperson about a problem does not result in the generation of records, nor does it constitute legal notice to the university about the existence of a problem.

For detailed information about the Ombuds Office, visit

www.ucdenver.edu/about/departments/OmbudsOffice/Pages/OmbudsOffice.aspx

Center for Pre-Collegiate and Academic Outreach Programs

Office: Administration Building, 360

Telephone: 303-556-2322

E-mail: pcdp@ucdenver.edu

Website: www.ucdenver.edu/academics/degrees/pre-collegiate/Pages/default.aspx

The programs offered by the Center for Pre-Collegiate and Academic Outreach Center serve to motivate middle- and high-school students to pursue post-secondary education and provide them the academic skills necessary to be successful in their college endeavors.

Pre-Collegiate Development High School Program

The Pre-Collegiate Development High School Program is a systemwide, institutionally funded academic enhancement program for high school students. The primary focus of the program is to prepare youth (grades 9–12) who are first-generation and from an underrepresented group in higher education to successfully complete high school on a timely basis and possess the necessary skills to successfully enter and graduate from their choice post-secondary institution. During the academic year, students will take part in relevant Saturday Academies in basic study skills, interpersonal skills development and college entrance exam preparation designed to acclimate them to the university and prepare them for college study. In addition, students are provided with either a two-week (sophomores) or five-week (juniors) intense summer academic program. During this experience, students are exposed to various academic courses, which are designed to enhance and augment their college entry requirements (e.g., mathematics, sciences,

writing and seminar) once they return to their host high school for either their junior or senior year. For further information you may contact us at 303-556-2322.

Pre-Collegiate Middle School Academic Program

The Pre-Collegiate Middle School Academic Program is an academic enhancement program. The program is designed to adequately prepare potential first-generation college students in grades seven to eight to successfully complete their pre-secondary school career, enroll in a college preparatory high school curriculum and ultimately enroll to their choice college/university with the necessary skills and academic preparation to succeed at and graduate from that institution. The Pre-Collegiate Middle School Academic Program serves as a precursor to the Pre-Collegiate Development High School Program. Students who successfully complete the Pre-Collegiate Middle School Academic Program with a cumulative GPA of 2.75 or better will then be admitted to the Pre-Collegiate Development Program at the end of their 8th grade year.

During the academic year, the students are provided relevant Saturday Academies in areas such as basic study skills, academic skills enhancement, leadership and interpersonal skills development. Parents of the participating students will also be offered relevant workshops during the Saturday Academy sessions, which include effective parenting strategies, as well as strategies on how to prepare financially for their student's college education. Tutoring services will also be provided on an ongoing basis during the academic year at their middle school. The academic year Saturday Academies are designed to augment middle school curriculum (e.g., mathematics, writing, sciences, computer skills, etc.) and enhance parenting skills and strategies designed to more fully support their student. For further information you may contact the program coordinator, Junior Reina, at 303-556-2322.

Upward Bound Program Power-Up Project

The Upward Bound program, a federally funded TRIO program, is an educational Pre-collegiate program for selected students from Sheridan and Jefferson High Schools. Upward Bound's mission is to prepare and help motivate students with potential for success in post secondary education. Participants are selected based on their academic performance, motivation for success, recommendations from teachers and counselors and additional criteria.

Upward Bound aims to provide program participants with the necessary skills needed to successfully graduate from high school and complete a four-year college degree. Students participate in after-school and weekend programs that include supplemental education, academic themed workshops, field trips and college campus tours. Every student also participates in a six-week summer program designed to prepare them for their high school classes and the college application process. Additionally, all students participate in a shadowing program with current college students and working professionals in the Denver metro area. The program is 100 percent funded by the U.S. Department of Education.

CU Succeed

The CU Succeed program enables juniors and seniors to earn fully transferable college credit while still in high school. There are two programs for students to choose from: CU Succeed Gold and CU Succeed Silver.

CU Succeed Gold: Courses are taught during regular school periods by specially qualified high school teachers who hold honorarium faculty appointments at CU Denver.

CU Succeed Silver: Courses may be taught during school periods and after school hours and are taught by CU Denver full-time or part-time faculty.

Courses taken through the CU Succeed programs are eligible for transfer to University of Colorado campuses, as well as to many other universities and colleges. More information about the CU Succeed programs is available at ucdenver.edu/academics/continuing-education/CUSucceed/Pages/default.aspx.

Scholars Program

The Scholars Program is an early college enrollment program for college-bound, high-achieving students who are potential first-generation who are *current graduating high school seniors*. The program allows students to begin their college studies by taking one course on the CU Denver campus during the fall and spring semester of their senior year. The credit earned in the course can be applied toward a bachelor's degree at CU Denver or at another institution.

Prior to and during their fall and spring enrollment, scholars engage in orientation, admissions and financial aid seminars and other workshops, *along with their parents*, designed to acclimate them to the university and prepare them for full-time college study. Assistance with course selection, educational planning and tutoring is provided.

Who may participate in the program? Students who are potential first-generation college students, and/or underrepresented in higher education may apply to the program. Applicants must be current juniors who are graduating from their respective high schools at the end of the following spring semester.

Applicants must meet the following criteria:

- A minimum GPA of 3.0 at the time of application
- Completion of at least two years of math (two years of algebra or one year of algebra and one year of geometry) with an average grade of B or better
- Completion of two years of English (one year must be composition) with an average grade of B or better
- A commitment to participate in all of the program's orientations and workshops prior to and during enrollment

NOTE: *Interested students are cautioned that college work requires considerable time and discipline.* Therefore, only students who have completed the majority of their high school requirements, who do not work after school and who are **not** heavily involved in extra-curricular activities are encouraged to apply. Since CU Denver courses are available throughout the day and into the early evening, students will have many options in choosing a course that best fits their schedule.

What are the student's responsibilities?

The CU Denver Scholars Program is committed to providing students with every opportunity to enhance their academic skills and to succeed in the college courses they take at CU Denver.

However, students will gain the most benefit from their experience at CU Denver if they commit themselves to the goals of the program and actively participate in its activities. Therefore students will be expected to:

- Commit themselves to actively participating in the program for the semester
- Attend their college class faithfully, completing assignments and participating fully (tutors or teaching assistants will be made available)
- Attend all tutorial sessions as required by instructors and staff

The program involves a serious commitment by students because college is a serious commitment. If a student earns a failing or a low grade in a college class, a prospective college or university may be reluctant to grant admission to that student. Students who are already involved in extra-curricular activities should apply to the program only if they are sure that these activities will not interfere with their full participation in the program.

How much does the program cost?

CU Denver covers most of the direct educational expenses, which includes tuition and matriculation fees. Students will be responsible for the following:

- Books (ranging from \$50 - \$100)
- A student identification card (\$10), available in the Tuvalu Student Union upon acceptance into the program
- Parking (\$3.75 to \$10 per day)

NOTE: Students must arrange their own transportation to and from the Aurora Campus. Those who choose to drive may park in the student lots for an hourly or daily fee.

How do students apply?

Application to the CU Denver Scholars Program must be made through a high school counselor. Applicants should ensure that their counselor submits the following materials/credentials to the Scholars Program.

- A University of Colorado Denver **non degree** application form; **Non-U.S. citizens** must attach photocopy of VISA or permanent resident card
- A *completed* application packet, including student general information form, counselor recommendation form and two teacher recommendation forms
- An unofficial copy of the student's high school transcript

Students should be advised that no application will be considered if it is incomplete.

Completed applications should be turned in to your high school college counselor. For additional information contact:

Annice D. Real, Assistant Director
University of Colorado Denver Scholars Programs
Campus Box 147
P.O. Box 173364
Administration Bldg., Suite #360

Denver, CO 80217-3364
303-556-2322
abenicio.rael@ucdenver.edu

Student Activities, Events, Student Organizations and Student Leadership Programs

Office: Tuvalu Student Union, 303

Telephone: 303-556-3399

Website: www.ucdenver.edu/life/services/studentlife/Events/Pages/Events.aspx

www.ucdenver.edu/life/services/studentlife/Student%20Clubs/Pages/default.aspx

www.ucdenver.edu/life/services/studentlife/Student%20Clubs/Leadership%20Programs/Pages/Leadership%20Programs.aspx

The Office of Student Activities offers a comprehensive student activities program that helps bring about a positive college experience for every student. Our goal is to integrate what students learn from the full range of their experiences and to engage them in active learning both inside and outside the classroom. We are committed to bringing new and exciting activities, events and workshops that provide innovative opportunities for student learning, especially in the areas of self-knowledge, leadership, diversity, communication, service, civic engagement and social responsibility. Through participation in co-curricular activities, we help students enhance interpersonal, leadership and critical thinking skills and help prepare them for active citizenship beyond college.

Get involved with a student organization, student government or the campus newspaper. CU Denver has over 200 student organizations, honor societies, professional organizations and faith-based groups. We help students register student organizations, and provide services, information, education, support, and advising to assist with the development and strengthening of students and student groups. In addition, we provide multiple opportunities for students to engage in practicing and developing their leadership skills. Leadership programs include diverse leadership conferences including the Women's Leadership Conference, a conference focused on feminist leadership; CO-Leads, a state wide Multicultural leadership conference; and the Lynx Leadership Conference, a program designed to increase the leadership skills of CU Denver Students. We also provide leadership trainings that enhance the co-curricular experience on campus through programs such as Leadership On Demand, a program designed for students involved in student organizations on campus; and Student Government Association, providing a voice for students on campus. We encourage students to take advantage of shared governance and increase the sense of community on campus through all of the leadership programs.

Club Sports

Office: Tuvalu Student Union, 303

Telephone: 303-556-3399

Website: www.ucdenver.edu/life/services/studentlife/clubsports/Pages/Club%20Sports.aspx

Club Sports are teams created and organized through student leadership to promote skill or interest in a particular sport. These teams are often competitive due to regularly scheduled practices and the use of part-time coaches. Club Teams frequently choose to compete against other schools across Colorado and the nation. Sport Clubs are meant to be a learning experience for the members through their involvement in fund raising, public relations, organization, administration, budgeting and scheduling. Involvement in a group and/or team situation helps enhance the student's overall education while improving the community at CU Denver. The leadership training and opportunities available through active participation in a sport club are intended to benefit the participant throughout his/her life.

Peer Advocate Leader (PAL) Program

Office: Tuvalu Student Union, room 303

Telephone: 303-556-3602

Website: www.ucdenver.edu/life/services/studentlife/PeerAdvocateLeaders/Pages/PeerAdvocateLeaders.aspx

The Peer Advocate Leaders (PAL) program promotes leadership for all students involved by matching undergraduate student leaders with various groups of students such as first-year and transfer students. The mentoring relationship is designed to foster student engagement and academic success by providing peer-level support that fosters student achievement, growth, and learning throughout students' academic career at the University of Colorado Denver.

Student and Community Counseling Center

Director: Dr. Patricia Larsen

Office: North Classroom, 4036. New Location: Tuvalu, 454 (effective Spring 2013)

Telephone: 303-556-4372

Website: www.ucdenver.edu/life/services/counseling-center/Pages/default.aspx

The CU Denver Student and Community Counseling Center provides culturally competent mental health services focused on support, growth and solutions. Services include:

- quality counseling, case management, consultation, testing, outreach, life-skills groups and preventative mental health services to the CU Denver campus community
- outreach and case management to CU Denver students who are identified as at-risk
- sensitivity to diversity and inclusion of all clients regardless of gender, race, ethnicity, religion, sexual orientation, age, socio-economic status and ability
- strength based counseling approach that assists students in finding solutions using their own strengths and abilities
- consultation and classroom presentations to faculty and staff upon request

All students are eligible for up to 10 counseling sessions per academic year and unlimited groups, workshops and case management services at no cost.

Student Government Association

Office: Tuvalu Student Union, 301

Telephone: 303-556-2510

Website: www.ucdenver.edu/life/services/studentlife/getinvolved/StudentGovernment/Pages/SGA.aspx

The Student Government Association serves as a voice for students. Similar to the structure of the U.S. government, SAG has executive, legislative and judicial branches. Executives are elected each year in the spring. SAG assists students with information concerning student clubs and organizations, campus events, issues concerning student status and other information of general interest to students. SAG also provides students assistance with grievances and the opportunity to become more closely involved with the university community through active participation in student government itself or through service on university, Teri-institutional and Aurora committees.

Student Health Insurance Office

Office: Tuvalu Student Union, 127

Telephone: 303-556-6273

Website: www.ucdenver.edu/life/services/studentlife/healthandrecreation/HealthInsurance/Pages/default.aspx

All F-1 and J-1 students enrolled at the Denver Campus are required to have health insurance. Students are automatically enrolled in the CU Denver International Student Insurance policy when they register for classes. All students have the option to submit a waiver that shows coverage with another insurance company in order to meet the Department of State and the University's insurance requirement. If approved the charges will be waived from their accounts. The CU Denver International Student Insurance policy also allows F-2, and J-2 dependents to enroll on the plan. For further information about the mandatory policy or information about the waiver process, please contact the Student Health Insurance Office at 303-556-6273.

Student Life

Office: Tuvalu Student Union, 303

Telephone: 303-556-3399

Website: www.ucdenver.edu/life/services/studentlife/Pages/StudentLife.aspx

The Office of Student Life integrates the academic, residential, and co-curricular spheres of students' lives, linking the out-of-class experience to the academic mission of the University while enhancing the overall educational experience of students through the development of, exposure to and participation in social, cultural, intellectual, recreational, leadership and governance programs. The Office of Student Life is the advising, coordinating, resource and general information center for student organizations, the academic honor societies student government and the student newspaper. We collaborate with students, faculty, administrators, and other partners both inside and outside of the CU Denver community to create safe environments for students. In addition, we create opportunities for students to learn through active participation and reflection where they can develop as responsible leaders and engage with their peers and cultivate appreciation for diversity and the betterment of our global society. The Office of Student Life is comprised of Student Activities, Student Health Insurance, Student Organizations and Student Leadership Programs, Peer Advocate Leaders Program, Women's

Resource Center, Volunteer and Community Service and Club Sports. The Director of Student Life represents the Assistant Vice Chancellor of Student Life/Dean of Students on selected CU Denver, Teri-institutional and Aurora committees and maintains effective lines of communication with the Student Assistance Office at the Insects Medical Campus.

Student Newspaper: The Advocate

Office: Tuvalu Student Union, 345

Telephone: 303-556-2535

Website: www.ucdadvocate.com

The purpose of the *The Advocate* is to provide students with information about campus issues and events. The newspaper strives to include good investigative reporting, feature articles and items of general interest to its campus readership. In addition, the newspaper is a tool to encourage and develop writers, journalists, artists and other student members of its general management and production staff.

Title IX: Sex Discrimination, Sexual Harassment, and Sexual Misconduct

Location: Tuvalu Student Union, Suite 127

Telephone: 303-352-3578

Website:

www.ucdenver.edu/about/WhoWeAre/Chancellor/ViceChancellors/Provost/StudentAffairs/UniversityLife/sexualmisconduct/Pages/CampusOptions.aspx

Related Policies and Procedures:

Title IX Grievance Procedures : [Grievance Procedures 2012-13.PD](#)

Sexual Harassment Policy and Procedures: <https://www.cu.edu/policies/aps/hr/5014.pdf>

Sexual Misconduct:

www.ucdenver.edu/life/services/standards/students/Documents/CU%20Denver%20Code%20of%20Conduct%202012-2013.pdf

The University of Colorado Denver is committed to taking prompt and effective actions to end sex discrimination, prevent its re occurrence, and remedy its effects upon the victims and community. The University employs trained professionals who have responsibility for Title IX compliance which includes investigating allegations of sex discrimination and retaliation. The Title IX Coordinator oversees the development, implementation, and evaluation of Title IX policies, procedures, and training efforts and he/she will refer all complaints to the appropriate Title IX Investigator.

To file a complaint or raise a question, please contact one of the Title IX officers listed below.

The Title IX Coordinator for the Denver Campus is:

Raul Cardenas, PhD. Associate Vice Chancellor of Student Affairs

Phone number: 303-315-2110

Email address: Raul.cardenas@ucdenver.edu

Office address: Lawrence Street Center, 14Th Floor Denver, CO 80202

Mailing address: Campus Box 146

All student complaints will be referred to or can be filed with

Tara Buckley, Title IX Investigator & Trainer

Office address: Tuvalu 127, F

Phone number: 303-352-3578

Email address: Tara.buckley@ucdenver.edu

**All non-student complaints will be referred to or can be filed with
Human Resources**

Phone number: 303-315-2700

Email address: Human.resources@ucdenver.edu

Transfer Initiative, Denver

Office: 1027 Ninth Street Park

Telephone: 303-352-3309

The Denver Transfer Initiative (DOTI) is a cooperative project between the Community College of Denver (CDC) and the University of Colorado Denver (CU Denver) aimed at increasing the graduation rate and completion of bachelor's degrees for traditionally under served populations, specifically first-generation, low-income and Hispanic. The project is designed to provide assistance and support to students throughout their course work and educational careers. Students attend their first two years at Community College of Denver then transfer to CU Denver for their last two years of course work.

DOTI students receive continuous assistance in the form of:

- support, guidance and advocacy
- financial aid and scholarship application assistance
- two-year to four-year transfer degree planning
- career assessment, exploration and counseling
- peer mentoring and tutoring services
- connection to campus and community resources
- attendance to informational workshops
- the opportunity to attend student events and multicultural activities

DOTI is a Title V grant project funded by the Department of Education's Developing Hispanic-Serving Institutions Program, which helps eligible institutions of higher education enhance and expand their capacity to serve Hispanic and low-income students by providing funds to improve and strengthen the academic quality, institutional stability, management and fiscal capabilities of eligible institutions (www.ed.gov/programs/ideshsi/index.html).

TRIO Program:Student Support Services

Office: North Classroom, 2506

Telephone: 303-556-3420

TRIO/Student Support Services is a federally funded by the Department of Education. The program for first-generation, low-income and disabled students provides services which include:

- academic support
- preparation for graduate school
- career planning, workshops
- scholarship information
- tutoring
- book scholarships
- peer mentoring

Veteran Student Services

Office: CU-Denver Building, 107A/B

Telephone: 303-556-2630, 303-556-2745

E-mail: vaoffice@ucdenver.edu

Web site: www.ucdenver.edu/life/services/Veteran/Pages/default.aspx

The University of Colorado Denver Office of Veteran Student Services (OVA'S) has been charged with representing veteran and veteran-dependent students on campus and in the Denver metropolitan area. Our mission is to improve and enrich the educational experience of our servicemen, servicewomen and their dependents through advocacy, as well as appropriate and responsive services.

The Office of Veterans Student Services is the initial contact point for eligible veterans and dependent students wishing to seek a post secondary education or CU Denver students who wish to utilize Veterans Administration educational benefits. This office services include:

- assistance in filling out VA paperwork
- assistance in solving problems associated with the receipt of VA-related educational benefits
- maintaining proper certification for eligible students to ensure that each student meets Veterans Administration requirements for attendance, course load and content, and other regulations necessary to receive educational benefits payments
- providing VA vocational rehabilitation referrals
- serving as a campus resource
- providing information on VA tutorial assistance
- offering VA work/study positions for qualified veterans

Volunteer and Community Service

Office: Tuvalu Student Union, 303

Telephone: 303-556-3399

Website: www.ucdenver.edu/life/services/studentlife/getinvolved/Pages/GetInvolved.aspx

College is the perfect time to get involved by volunteering. Through the office of Student Life, we offer the Alternative Break program: which allows students to volunteer over the spring, winter and summer interim breaks. We work with different offices and organizations to find volunteer opportunities for you. We also run a food pantry that is open to all students. Come by and donate or take food whenever you need to. Best of all, we get to meet the students who donate their time and efforts! We offer a variety of community engagement programs and opportunities for you to get involved with including alternative breaks, Habitat for Humanity, Stop & Serve, the volunteer database and the volunteer fair.

Women's Resource Center

Office: Tuvalu Student Union, 303

Telephone: 303-556-3399

Website:

Website: ucdenver.edu/wrc

It is the Women's Resource Center's mission to provide resources, advocacy, services, and programming, which promote awareness of women's issues and equality for all students. We are a safe and nurturing space that enables women, specifically underrepresented women, in the university community to thrive. We value inclusion, social justice, and gender equity as a means to ensure respect and tolerance for all people regardless of background or experience. To accomplish this mission, the RC runs several events, workshops, and educational conferences every year, as well as provides direct resource consultation for students in need.

Writing Center

Director: Justin J. Bani

Office: North Classroom, 4014

Telephone: 303-556-4845

Website: www.ucdenver.edu/academics/colleges/CLAS/Centers/writing/Pages/TheWritingCenter.aspx

The Writing Center at CU Denver provides free writing assistance to students. We view writing as a process and all texts as works in progress. We build confident, accomplished writers through the teaching of discipline-specific genre knowledge, the development of critical-thinking skills and the practice of audience-centered writing. Our clients develop better writing skills while improving their texts.

Professional writing consultants assist writers of all levels and in all disciplines on any type of written work. Services include one-on-one and small-group writing consultations designed to prepare writers to:

- Understand assignment expectations
- Generate, organize and develop ideas
- Analyze, synthesize and argue

- Summarize, paraphrase and document sources
- Effectively recognize and revise issues with grammar and syntax

The Writing Center offers a variety of locations and services to best meet your needs:

- North Classroom 4014 (Denver Campus): Mon.-Thurs. 9 a.m.–6 p.m. and Fri. 9 a.m.–2 p.m.
- Campus Village (Denver Campus): Sun., Mon., Wed. 6–9 p.m. and Fri. 2–5 p.m.
- Health Sciences Library 1204 (Insects Medical Campus): Tues. and Fri. 10 a.m.–6 p.m. and Sun. 2–8 p.m.
- On line (real-time): Every evening 6–10 p.m.
- On line Drop Box for graduate students and Insects Medical Campus students only
- Handouts, pod casts, and videos via the Resources section of the website

All consultations are by appointment; to schedule an appointment, please visit our website.

University Policies

Every organization, large and small, runs more smoothly when policies and procedures are in place. This chapter touches briefly on policies that are most important to students and their academic pursuits. The University of Colorado Denver's Policies and Guidelines website, www.ucdenver.edu/faculty_staff/employees/policies/, provides a complete list of policies for every facet of the organization, including those from other organizations that affect the Denver Campus, such as the Laws of the Regents and policies of the Auraria Higher Education Center.

Academic Honor Code and Discipline Policies

Policies related to academic credit and grades are explained in the [Registration and Records](#) chapter of this catalog.

Academic Honesty

A university's reputation is built on a standing tradition of excellence and scholastic integrity. As members of the CU Denver academic community, faculty and students accept the responsibility to maintain the highest standards of intellectual honesty and ethical conduct in completing all forms of academic work at the university.

Forms of Academic Dishonesty

Students are expected to know, understand and comply with the ethical standards of the university. In addition, students have an obligation to inform the appropriate official of any acts of academic dishonesty by other students of the university. Academic dishonesty is defined as a student's use of unauthorized assistance with intent to deceive an instructor or other such person who may be assigned to evaluate the student's work in meeting course and degree requirements. Examples of academic dishonesty include, but are not limited to the following:

A. Plagiarism

Plagiarism is the use of another person's distinctive ideas or words without acknowledgment. The incorporation of another person's work into one's own requires appropriate identification and acknowledgment, regardless of the means of appropriation. The following are considered to be forms of plagiarism when the source is not noted:

- word-for-word copying of another person's ideas or words
- the mosaic (the interspersing of one's own words here and there while, in essence, copying another's work)
- the paraphrase (the rewriting of another's work, yet still using their fundamental idea or theory)
- fabrication (inventing or counterfeiting sources)
- submission of another's work as one's own
- neglecting quotation marks on material that is otherwise acknowledged

Acknowledgment is not necessary when the material used is common knowledge.

B. Cheating

Cheating involves the possession, communication or use of information, materials, notes, study aids or other devices not authorized by the instructor in any academic exercise or communication with another person during such an exercise. Examples of cheating are:

- copying from another's paper or receiving unauthorized assistance from another during an academic exercise or in the submission of academic material
- using a calculator when its use has been disallowed
- collaborating with another student or students during an academic exercise without the consent of the instructor

C. Fabrication and Falsification

Fabrication involves inventing or counterfeiting information, i.e., creating results not obtained in a study or laboratory experiment. Falsification, on the other hand, involves the deliberate alteration or changing of results to suit one's needs in an experiment or other academic exercise.

D. Multiple Submission

This is the submission of academic work for which academic credit has already been earned, when such submission is made without instructor authorization.

E. Misuse of Academic Materials

The misuse of academic materials includes but is not limited to the following:

- stealing or destroying library or reference materials or computer programs
- stealing or destroying another student's notes or materials or having such materials in one's possession without the owner's permission
- receiving assistance in locating or using sources of information in an assignment when such assistance has been forbidden by the instructor
- illegitimate possession, disposition or use of examinations or answer keys to examinations

- unauthorized alteration, forgery or falsification of academic records
- unauthorized sale or purchase of examinations, papers or assignments

F. Complicity in Academic Dishonesty

Complicity involves knowingly contributing to another's acts of academic dishonesty.

Procedures in Cases of Suspected Academic Dishonesty

All matters of academic policy, including academic dishonesty, are under the jurisdiction of each of the university's schools and colleges pursuant to Article 4.A.2 and Article 5.E.5 of the Laws of the Regents. Accordingly, each school and college has established procedures for addressing matters of academic dishonesty and for determining the severity and consequences of each infraction. Students should contact their school or college dean's office for procedures specific to their school or college.

Academic Probation and Suspension Policies

Students at the University are expected to maintain progress in their degree program, as defined by being in "good academic standing." Good academic standing requires minimally a cumulative grade point average (GPA) of 2.0 on all University of Colorado course work.

Academic Probation

- Academic probation is a warning to students that they are not progressing toward completion of their degree in a satisfactory manner.
- Students are placed on academic probation when their cumulative CU GPA falls below a 2.0 at the end of any academic term.
- Students are informed in writing (via university-assigned e-mail and postal letter) of their academic probation status.
- Students on academic probation will be required to complete the academic success plan during their first semester on academic probation.
- Students will be required to schedule an appointment and meet with their academic advisor to discuss the completed academic success plan before they will be allowed to register for the subsequent term.
- Students on academic probation will be required to schedule an appointment and meet with their academic advisor every semester that they are on academic probation before they will be allowed to register.
- Academic probation requires that students achieve a minimum 2.3 semester GPA each subsequent term until their cumulative CU GPA is at least a 2.0 to return to good academic standing. Students must achieve a minimum 2.0 cumulative CU GPA to meet graduation requirements.
- Students who fail to earn the 2.3 semester GPA during any semester of academic probation will be placed on restricted academic probation.
- Students have five semesters or 30 credits (whichever happens sooner) to raise their cumulative GPA to above a 2.0, or they will be placed on academic suspension.
- Once a student has raised his/her cumulative CU GPA to at least a 2.0, s/he will be removed from academic probation and notified via university-assigned e-mail that s/he is in academic good standing.

Restricted Academic Probation

- Students who fail to earn the 2.3 semester GPA during any semester of academic probation will be placed on restricted academic probation.
- Students are informed in writing (via university-assigned e-mail and postal letter) of restricted academic probation status.
- Students on restricted academic probation will be allowed to enroll for a maximum of 6 credits/two classes per semester (whichever is more). A course and its attached lab are considered to be one course in this case.
- Students on restricted academic probation will be required to schedule an appointment and meet with their academic advisor in order to register for courses.
- Students on restricted academic probation will not be able to register online; they will need to register for courses using a schedule adjustment form, which must be submitted to the Service Center (North Classroom #1003) for processing.
- Restricted academic probation requires that students achieve a minimum 2.3 semester GPA each subsequent term until their cumulative CU GPA is at least a 2.0. Students must achieve a minimum 2.0 cumulative CU GPA to return to good academic standing and to meet graduation requirements.
- Students on restricted academic probation who do not meet the 2.3 minimum semester GPA will be placed on academic suspension.
- Students who fail to raise their cumulative GPA to 2.0 or above in five semesters or 30 credit hours on academic probation and restricted academic probation will be placed on academic suspension.

Academic Suspension

- Students on restricted academic probation who do not meet the 2.3 minimum semester GPA will be placed on academic suspension.
- Students are informed in writing via certified/registered letter of their academic suspension status.
- The minimum duration of academic probation is for a period of one year (three semesters, including summer term). Students placed on academic suspension will be unable to take courses from any CU campus during this time.
- Should a student be placed on academic suspension while registered for the next semester, s/he will be administratively dropped from their courses by the university.
- A student's academic suspension status is permanently indicated on his/her official University of Colorado transcript.
- During the one-year academic suspension period, students who wish to return to the university should consider one (or both) of the following actions:
 - Attend another regionally-accredited college/university.
 - Students who choose to attend another institution while on academic suspension can take as many or as few credits as they choose, but must earn a 2.75 cumulative GPA in all transferable course work.
 - Students should consult their academic advisor to discuss appropriate course work.

- Use the time off to directly address and resolve the factors that contributed to the academic difficulty.
- After the one-year suspension period has elapsed, students must petition the appellate committee (of the school or college they wish to enter) for readmission and meet and document at least one of the following criteria:
 - Attendance at another regionally accredited college/university where they earned a minimum cumulative GPA of 2.75 in transferable credit.
 - Explanation of their previous academic difficulty, demonstration of what has changed and how this will allow them to now achieve and maintain good academic standing (including a semester GPA of at least 2.3 and a cumulative GPA of at least a 2.0).
- Students who choose to petition their college's appellate committee for re-admission must submit their petitions by the following deadlines:
 - For fall admission: June 1
 - For spring admission: December 1
 - For Maymester/summer admission: April 1
- If a student is granted readmission and his/her CU GPA is below a 2.0, s/he will be re-admitted *on restricted academic probation*. These students must meet the condition of restricted academic probation every semester until their cumulative CU GPA is at least a 2.0.

Second Suspension

- Students who are readmitted after their first academic suspension and fail to meet the conditions of restricted academic probation for a second time are placed on a second suspension for an indefinite period of time.
- Students on a second suspension may be readmitted to the university only by petition to the college's appellate committee.
- Students will not be considered for re-admission unless they have demonstrated *significant* improvement in academic performance at the college/university level, and/or considerable and positive change in personal circumstances.

Code of Student Conduct - Community Standards and Wellness

Director: Larry Loftin

Office: Tivoli Student Union, 227

Telephone: 303-556-2444

Preamble

As members of the CU Denver community, students are expected to uphold University standards, which include abiding by state, civil, and criminal laws and all University laws, policies and standards of conduct. These standards assist in promoting a safe and welcoming community; therefore all students must uphold and abide by them.

The University strives to make the campus community a place of study, work and residence where people are treated, and treat one another, with respect and courtesy. The University views the student conduct process as a learning experience that can result in growth and personal understanding of one's responsibilities and privileges within both the University

community and the greater community. Students who violate these standards may be subject to the actions described below. These procedures are designed to provide fairness to all who are involved in the conduct process.

Philosophy of Student Conduct

We strive to learn from one another in an educational environment that holds mutual respect for individuals and self-responsibility for behaviors community in high regard. Students who engage in behavior that conflicts with established standards, laws, policies, and guidelines may be referred for conduct proceedings.

Every member of the student community must assume responsibility for becoming educated about the various University and housing standards, policies, and guidelines. It is against the basic nature of this community for anyone to demean or discriminate against another human being. A caring, educational community does not tolerate physical or psychological threats, harassment, intimidation, or violence directed against a person. Students engaging in such behavior are subject to the University conduct processes.

Diversity Statement

We are committed to a campus community where diversity is appreciated and valued, and where all individuals are treated fairly and with respect. We encourage curiosity, open communication, continuous learning, and community service as ways to create a socially just environment. We respect the right for individuals to disagree with ideas and philosophies different from their own. However, we do not permit any form of behavior that places anyone in dangerous, discriminatory, or harassing environments. We expect all community members to work towards these same goals.

Our goal in the conduct process is that the student, through their experience in our process, will grow in the following areas:

Intellectual Growth

The student will gain a better understanding of the consequences and potential consequences of his/her personal actions and will learn the purposes of institutional policies.

He/She will employ critical thinking in problem solving and ultimately obtain a degree.

Clarification of Values

The student will understand the effect of their behavior on others. The student will demonstrate ethical development, will comply with institutional policy, and commit no further violations of policy. The student will gain understanding of the institutional values reflected in institutional policies.

Importance of personal integrity.

Through our process the student will be asked to scrutinize his/her beliefs, ethics, and values. The student will be able to articulate his/her personal ethics and values, will act in congruence with those ethics and values, will act in congruence with those ethics and values, and make decisions that reflect his/her beliefs.

A. Authority

Article 7, Part B, of the Laws of the Regents requires each campus to develop a Student Code of Conduct. The Associate Vice Chancellor for Student Affairs is authorized to establish and enforce the Code of Conduct. Any questions regarding interpretation of this Code or any of its provisions should be directed to the Associate Vice Chancellor for Student Affairs or his/her designee for final determination.

The Associate Vice Chancellor for Student Affairs and/or his or her designee shall appoint Student Conduct Officers and Appeals Officers. The Director of Community Standards and Wellness shall determine which Student Conduct Administrator and Appeals Officer shall be assigned to hear each matter.

1. The Associate Vice Chancellor for Student Affairs and/or his or her designee shall develop policies for the administration of the student conduct system and procedural rules.
2. Decisions made by a Conduct Officer shall be final, pending the appeals process.
3. Proceedings initiated under this policy are separate from civil or criminal proceedings that may relate to the same incident. Investigations or conduct proceedings by the University are not postponed while criminal or civil proceedings are pending unless otherwise determined by the Conduct Officer.

B. Jurisdiction

1. The University of Colorado Denver (CU Denver) Student Code of Conduct shall apply to conduct that occurs on University premises, University-sponsored programs or activities, Campus Village Apartments, and to off-campus conduct that adversely affects the University community, poses a threat to the safety of persons or property, or damages the institution's reputation or relationship with the greater community. In addition, CU Denver, in collaboration with the communities of the greater Denver Metropolitan area, may respond to student violations of laws and ordinances designed to protect civility and quality of life. The Student Code of Conduct may be applied to conduct occurring off-campus.

C. Advisors

1. Students may be accompanied by an Advisor during the conduct process. Advisors are not permitted to speak for or on behalf of the student during any phase of the conduct process, including hearings. However, with permission from the Conduct Officer, an

Advisor may make a statement and/or ask questions of the charged student to present relevant information after the Conduct Officer has completed discussions with the student.

2. University Conduct Officers may also consult with University Counsel during the conduct process.
 - a. The Student Conduct Officers reserve the right to remove the Advisor from the Conference should s/he not adhere to the above guidelines or become a disruption to the process.
 - b. If a student chooses to bring an Advisor to the meeting, it is the student's obligation to select an Advisor whose schedule allows attendance within the time frame designated in the Student Conduct Conference Notice. The Conduct Officer is not obligated to reschedule the conference to accommodate Advisors to students.

D. Student Responsibilities

It is the responsibility of all students who are potential parties or witnesses to an alleged violation of the Code to participate in the process conscientiously. Students have a responsibility to cooperate and discuss the incident with an investigator and Conduct Officer over the telephone or in person, adhere to stated deadlines, attend scheduled meetings, and participate in all proceedings. Failure to meet these responsibilities may result in a decision being made without the benefit of the student's participation.

1. Each student shall be responsible for his/her conduct from the time of application for admission through the actual conferral of a degree, even though conduct may occur before classes begin or after classes end, as well as during the academic year and during periods between terms of actual enrollment. The disciplinary process may proceed even if the student withdraws from school while a disciplinary matter is pending.
2. The unexcused failure of a student to appear and/or respond to the conduct process does not prevent the University from proceeding with the conduct process in the student's absence.

E. Prohibited Student Conduct

The following section is based in part on Regent Law 7.B.3. The conduct listed below is prohibited, as are attempts to commit, aid, abet, or incite others to commit conduct prohibited by this Code. Engaging in retaliatory acts against a person who reports an alleged violation of the Code or testifies, assists, or participates in a conduct proceeding or investigation is a violation of this Code.

*The recommended minimum sanction for violating any of the below standards with **bold type** shall be suspension unless specific and significant mitigating factors are present.*

1. **Assaulting or physically abusing another person or being involved in brawling.**

a. In the case of a student who is found responsible via the Student Code of Conduct process to have caused severe injury or bodily harm, the minimum sanction shall be suspension.

i. Severe injury and bodily harm includes but is not limited to the following: broken bones, concussions, lacerations, etc.

2. Intimate partner violence. Intimate partner violence is conduct between people who are or were involved in a sexual or romantic relationship when one person in the relationship causes harm or significant alarm or distress to the other person. This includes but is not limited to threats, assault, or other action against the person or their property when used as a method of coercion, control, punishment, intimidation, or revenge. For more information on Interpersonal Violence policies and procedures please see Appendix I.
3. Threatening or endangering the health or safety of a person (one's self or others).
4. Sexual Misconduct: Sexual misconduct includes non-consensual sexual intercourse, non-consensual sexual contact and sexual exploitation or exposure, and sexual Harassment.
 - a. **Non-consensual sexual intercourse:** Non-consensual sexual intercourse is any sexual intercourse (anal, oral or vaginal), including sexual intercourse with an object, however slight, by one person upon another without consent and/or by force.
 - b. **Non-consensual sexual contact:** Non-consensual sexual contact is any sexual touching (including touching with an object) however slight, by one person on another without consent and/or by force.
 - c. **Sexual exploitation and/or exposure:** Sexual exploitation is when a student takes non-consensual, unjust, or abusive sexual advantage of another for his/her own pleasure, advantage or benefit, or to pleasure, benefit or advantage anyone other than the one being exploited. Sexual exposure occurs when a student engages in lewd exposure of the body done with the intent to arouse or satisfy the sexual desire of any person.
 - d. **Sexual Harassment:** Unwelcome, gender-based verbal or physical conduct that is sufficiently severe, persistent or pervasive that it has the effect of unreasonably interfering with, limiting or denying someone the ability to participate in or benefit from the university's educational program.

Note: For the purposes of this Code of Conduct, consent shall be defined as the act of knowingly and voluntarily agreeing, verbally or non-verbally, to engage in sexual activity. An individual cannot consent who is obviously, substantially impaired by any drug or intoxicant; or who has been purposely compelled by coercion, force, threat of force, intimidation, or deception; or who is unaware that the act is being committed; or whose ability to consent or resist is

obviously impaired because of a mental or physical condition; or who is coerced by supervisory or disciplinary authority.

For a more complete list of terms and detailed definitions please see Appendix 1: Definitions and Procedures for Sexual Misconduct, Sexual Harassment, and Nondiscrimination Policy

5. Indecently exposing one's body (non-sexual).
6. Stalking. Repeated conduct which reasonably and subjectively causes another person to fear for his/her safety or repeated conduct which causes a person to alter his/her activities in response to the repeated conduct. Such repeated conduct may include, but is not limited to, any of the following: physically or electronically following or approaching a person or a member of that person's family or household; contacting a person or a member of that person's family or household whether or not conversation ensues; and placing a person or a member of that person's family or household under surveillance.
7. **Hazing.** Any action or situation that recklessly or intentionally endangers the health, safety, or welfare of an individual for the purpose of initiation, participation, admission into or affiliation with any organization at the University. Hazing includes, but is not limited to, any abuse of a mental or physical nature, forced consumption of any food, liquor, drugs, or substances, or any forced physical activity that could adversely affect the health or safety of an individual. Hazing also includes any activity that would subject the individual to embarrassment or humiliation, the willingness of the participant in such activity notwithstanding. (See Appendix 5)
8. Abusive Conduct. Unwelcome conduct by an individual(s) that is sufficiently severe or pervasive that it alters the conditions of education or employment and creates an environment that a reasonable person would find intimidating, hostile or offensive. The determination of whether an environment is "hostile" must be based on all of the circumstances. Factors to consider include the frequency of the conduct, its severity, and whether it is threatening or humiliating. Simple teasing, offhand comments and isolated incidents (unless extremely serious) will not amount to abusive conduct.
 - a. This policy should not be construed, and will not be enacted, to deny any student the right of free speech and expression.
9. Violating any federal, state, or local law or University regulation or policy. University policy may include but is not limited to:
 - a. "Sexual Harassment Policy and Procedures" (<https://www.cu.edu/policies/aps/hr/5014.html>)
 - b. "Nondiscrimination Procedures" (http://www.ucdenver.edu/faculty_staff/employees/policies/Policies%20Library/HR/Nondiscrimination.pdf)

- c. “Computing Policy Statement”
(http://www.ucdenver.edu/faculty_staff/employees/policies/Policies%20Library/DC/Computing/ComputingPolicy.pdf)
10. Interfering with, obstructing or disrupting a University activity.
 - a. University activities include, but are not limited to, all normal University activities, such as teaching, research, recreation, meetings, public events, and disciplinary proceedings.
 - b. This prohibition includes: conduct disruptive of University functions; from injury to persons or damage to property on the campus; and from impeding freedom of movement of students, school officials, employees, and invited guests to all facilities of the University. Interference in any manner with the public or private rights of citizens, conduct that threatens or endangers the health or safety of any person, and damage to property are prohibited.
11. Interfering with, obstructing, or disrupting police or fire responses. This prohibition includes, but is not limited to:
 - a. Resisting arrest.
 - b. Failing to abide by the directions of a peace officer.
 - c. **Tampering with, impairing, disabling, or misusing fire protection systems such as smoke detectors, fire extinguishers, sprinklers, or alarms.**
 - d. Failing to evacuate during a fire alarm.
 - e. **Arson/setting fires.**
12. Failing to comply with the direction of University or housing employees who are performing their duties. Students are required to comply with instructions or directions given by University or housing employees.
13. Failing to abide by or complete a University sanction in a satisfactory manner, including violating the Student Code of Conduct while on University probation, University probation with loss of good standing, termination in abeyance, or suspension in abeyance.
14. Providing false information to University employees, student conduct administrators, or peace officers in performance of their duties or forging, altering, falsifying or misusing documents or records, or knowingly using/possessing forged, altered or false documents or records.
15. Retaliating against or discouraging an individual from participating in a University process, acting improperly to influence a University conduct process, or the unauthorized release of confidential student or University information/records.

- a. Direct contact with an individual or conduct officer or review committee or contact through third party may constitute a violation of this provision.
- 16. Violating any policy or procedure listed in the Campus Village Apartments Resident Handbook while in Campus Village. See a complete list of Campus Village Policies and procedures at: <http://www.campusvillagedenver.com>
- 17. Unauthorized entry into or exit from a University facility or property, including Campus Village Apartments.
- 18. Damaging University property or property belonging to another.
- 19. **Engaging in, inciting, or arming someone for a riot or public disturbance (see appendix 4).**
- 20. Use of electronic or other devices to make an audio or video record of another person without that person's express consent and/or knowledge when such a recording is likely to cause injury to or exploit the individual being recorded.
- 21. **Possessing firearms, explosives, fireworks, incendiary devices, ammunition, or other weapons on campus.**
 - a. Possession of a harmless instrument designed to look like firearm, explosive, or dangerous weapon is also prohibited by this policy(including but not limited to BB guns, pellet guns, airsoft guns, martial arts equipment, and knives with a blade over 3" in length).
 - b. Is mandated by Regent's Policy, in the case of a student who is found responsible via the Student Code of Conduct process to have intentionally or recklessly used or possessed a weapon in a way that would intimidate, harass, injure, or otherwise interfere with the learning and working environment of the University, the minimum disciplinary sanction shall be expulsion.
 - i. In the case of a harmless instrument as described in section 21a., the minimum sanction shall be expulsion if the student used the item with the intent to cause fear in or assault to another person.
 - c. **Mere possession of firearms, explosives, fireworks, incendiary devices, ammunition, other weapons, or instruments designed to look like any of the above will result in suspension unless mitigating factors are present.**

Note: Students, faculty, and staff possessing valid Concealed Handgun Permits are allowed to carry concealed on campus in accordance with the law.

- 22. Theft, including but not limited to, possessing property known to be stolen, or taking property of another without consent, even with an intent to return the property.
- 23. Possessing, using, providing, **manufacturing, distributing, or selling** drugs or drug paraphernalia, or prescription drugs in violation of law or University policies

- a. If the violation occurs in Campus Village Apartments, a student who knew, or reasonably should have known, s/he was in the presence of illegal drugs or drug paraphernalia or prescription drugs is in violation of the code.
- b. Attending classes or University functions while under the influence of drugs/illegal substances shall also be considered a violation of this Code.
- c. **In the case of a student who is found responsible via the Student Code of Conduct process to have endangered the health, safety, or welfare of an individual through the provision of drugs, the minimum disciplinary sanction shall be suspension.**

Note: Although possession and use of marijuana for certain medical conditions consistent with the requirements of the Colorado Constitution is no longer a crime in the State of Colorado, the possession and use of marijuana remains illegal under federal law. Consistent with federal law, including the Controlled Substances Act and the Drug Free Schools and Communities Act, the use and/or possession of marijuana continues to be prohibited while a student is on campus, including while in campus housing.

- 24. Possessing, using, providing, **manufacturing, distributing, or selling** alcoholic beverages in violation of law or University policies.
 - a. If an underaged student is in Campus Village Apartments, this prohibition includes a student who knew, or reasonably should have known s/he was in the presence of alcoholic beverages, or possessed, displayed, or was in the presence of alcohol containers.
 - b. Attending classes or University functions under the influence of alcohol shall also be considered a violation of this Code. This includes inappropriate alcohol related behavior at official University functions where alcohol is served.
 - c. **In the case of a student who is found responsible via the Student Code of Conduct process to have endangered the health, safety, or welfare of an individual through the provision of alcohol, the minimum disciplinary sanction shall be suspension.**

The health and safety of members of the University of Colorado at Denver are the primary concerns of the University. The University is committed to ensuring that students obtain timely medical assistance for themselves and for their peers. To this end, we have instituted a "Good Samaritan" Provision for drug, alcohol, an IPV related incidents. For more information about this provision please see Appendix 3.

F. Definitions

- 1. **Acceptance of Responsibility.** The charged student agrees that his or her behavior constitutes a violation of the Code of Conduct, as outlined in the Conference Notice.

2. **Aggravating Factor.** Any circumstances accompanying the commission of misconduct that add to its seriousness. Examples may include the use of violence or force, violation of a trust or duty, premeditation of an incident, the existence of a previous conduct violation, and elements of hate or bias.
3. **Consent to Sexual Contact/Activity.** For the purposes of this Code, consent shall be defined as the act of knowingly and voluntarily agreeing verbally or non-verbally to engage in sexual activity. An individual cannot consent who is obviously substantially impaired by any drug or intoxicant; or who has been purposely compelled by coercion, force, threat of force, intimidation, or deception; or who is unaware that the act is being committed; or whose ability to consent or resist is obviously impaired because of a mental or physical condition; or who is coerced by supervisory or disciplinary authority. (For additional information on Consent please see Appendix 1).
4. **Appeal Officer.** Any individual appointed by the University to process student conduct appeals.
5. **Campus.** The Auraria Campus in Denver, Colorado and all buildings associated with CU Denver on and/or adjacent to that campus including but not limited to: Campus Village Apartment, the CU Building, Lawrence Street Center, and The Business School Building.
6. **Complainant.** Any person who submits a report, orally or in writing, alleging that a student violated this Student Code.
7. **Conduct Officer.** Any individual appointed by the Director of Community Standards and Wellness to process student conduct matters.
8. **Conduct Process.** Any process outlined in this Student Code of Conduct Policies and Procedures.
9. **Conference Notice.** Notification sent to a student containing information about an alleged violation of the Student Code of Conduct.
10. **Designation.** A student's classification; i.e., graduate, undergraduate, continuing education, degree seeking, or non-degree-seeking.
11. **Faculty Member.** Any person hired by the University to conduct classroom or teaching activities or who is otherwise considered by the University to be an employee.
12. **Force.** The use of physical violence and/or imposing on someone physically. Force also includes, threats, intimidation, (implied threats), and coercion that overcomes resistance or produce consent.
13. **Member of the University and Campus community.** Includes any person who is a student, faculty member, University official or any other person employed by the University. This term also applies to students, faculty members, and University officials of the other institutions on the Auraria Campus, including but not limited to: the Metropolitan State University of Denver (MSU Denver), the Community College of Denver (CCD), and the Auraria Higher Education Center (AHEC). A person's status in a particular situation shall be determined by the Director of Community Standards and Wellness.
14. **Mitigating Factor.** Extenuating circumstances that may be taken into account to reduce a sanction. They do not constitute a justification or excuse for the offense in question.
15. **Parent.** A student's parent or legal guardian.
16. **Peace Officer.** A person designated by the University of Colorado, its agents, or the state or federal government with the responsibility of enforcing laws or policies. C.R.S. 16-2.5-101.

17. **Policy.** The written regulations of the University as found in, but not limited to, the Student Code of Conduct, Laws and Policies of the Board of Regent's, Campus Village Resident Handbook, the University web page and computer use policy, and Graduate/Undergraduate Catalogs.
18. **Preponderance of Evidence.** What happened more likely than not, or "50% plus a feather." This shall be the standard of proof used in all conduct proceedings under this Code.
19. **Respondent.** Any student accused of violating this Code.
20. **Student.** The term student includes all persons taking courses at the University, either full time or part time, pursuing undergraduate, graduate, or professional studies, as well as non-degree students and concurrently enrolled high school students.

This also includes individuals admitted or in the process of being admitted, those attending orientation sessions, and those that were enrolled at the date of an alleged incident. Persons who withdraw after allegedly violating the Student Code of Conduct are also considered "students."
21. **University.** The University of Colorado Denver.
22. **University Employee.** A University employee working in the performance of his or her duly authorized duties. University employees may be full or part time, or may be student staff members.
23. **University Premises.** Includes all land, buildings, facilities, and other property in the possession of or owned, used, or controlled by the University (including adjacent streets and sidewalks, all AHEC facilities, and Campus Village Apartments).
24. **Witness.** Any individual who may have information relating to a conduct case.
25. **Working Day.** Monday through Friday, except for official University holidays.

G. Student Code of Conduct Procedures

The following procedures will be used for student conduct proceedings, except as noted below.

For cases involving an alleged violation of sections F.2 (IPV), F.4a-d (Sexual Misconduct), F.6 (stalking), F.9.a (Sexual Harassment), and F.9.b (Nondiscrimination and Harassment) the conduct process outlined in Appendix 1 applies. When alleged violations of the charges governed by Appendix 1 are accompanied by other alleged violations of the Student Conduct Code, all of the charges may be processed together as outlined in Appendix 1.

A. Commencement of a Conduct Process

1. The discipline process can be initiated by police reports, Campus Village incident reports, or a report from any university employee, student, or other member of the University/Campus/general community. This process is initiated through the submission of a written or oral account of the incident to the Office of Community Standards and Wellness.
2. Upon the receipt of a report, the Conduct Officer may determine that there is sufficient reason to charge the student with a violation of the Student Code of Conduct and a University disciplinary conference is warranted. The Conduct Officer may 1) initiate conduct proceedings by sending the student a Conference Notification; 2) resolve the situation through an informal resolution process, including but not limited to, mediation or a meeting between the respondent and a

Student Conduct Officer or a third party; or 3) determine that the facts of the complaint or report, even if true, would not constitute a violation of the Code of Conduct or applicable policy.

In some cases, alternative dispute resolution such as Restorative Justice or mediation, may be offered by mutual consent of the parties involved and on a basis acceptable to the Conduct Officer. A written summary of these agreements are provided to all parties. These agreements are binding and once entered are not subject to appeal. Failure to abide by the agreements could result in the situation being returned through the conduct process for possible disciplinary action.

B. Conference Notification

1. All charges shall be presented to the Respondent in electronic form via the student's official CU Denver email account. This notification will provide the Respondent with information on how to obtain or review the initiating reports, and set a time for the conference. The notification shall also include:
 - a. A description of the alleged misconduct and violation.
 - b. The Code of Conduct provisions that are alleged to have been violated.
 - c. Instructions on how to request copies of records obtained from outside agencies.
 - d. An explanation of the student conduct process.
2. Conferences are scheduled not less than three (3) business days (less than the three day minimum would require mutual agreement between the student and Conduct Officer) nor typically more than fifteen (15) business days after the student has been notified of the charges.
 - a. Expedited Process
 - i. When the Conduct Officer determines that a prompt review is essential (e.g., end of the semester, the student is graduating, or there is substantial concern for the health, safety, or welfare of a member of the University community), the Conduct Officer may require that the student meet with him or her within a much shorter period of time at the discretion of the Conduct Officer.
3. The notification may contain specific requirements or restrictions, pending the resolution of the matter through the conduct process, as needed to protect the interests of involved students or the University. These requirements could include but are not limited to: temporary relocation in student housing, restriction from specific campus locations, or orders prohibiting contact with complainants or witnesses. *The notification will be sent to the student's official University e-mail address.*

C. Options for Resolution of Disciplinary Charges

After review of the information contained with the Conference Notification, the Respondent has the following options:

1. Accept responsibility for the charges
 - a. When the Respondent agrees with the contents of the complaint and accepts responsibility for the behavior, the conference will involve a meeting with the Conduct Officer to determine the appropriate level of discipline and other sanctions or restorative resolution outcomes.

2. Dispute the charges
 - a. In the event that the student does not accept responsibility for the charges or substantially disagrees with information contained within the report, a formal University Conduct Conference will be conducted.
3. Alternative Dispute Resolution Methods
 - a. In some instances, there may be additional options offered to resolve the conflict or concern. These shall be utilized at the discretion of the Conduct Officer.

D. Conferences

Student Conduct Conferences shall be conducted by University Conduct Officers according to the following guidelines:

1. A student being investigated, a charged student and an alleged victim of an alleged policy violation may be accompanied by an Advisor during the conduct process. (See section C of this document for more information about Advisors).
2. University conduct conferences and administrative meetings are considered private, educational interactions between the student(s) and the University. The Complainant, Respondent and their Advisors, if any, shall be allowed to attend the informational conference. Deliberations between University Officials are closed. Inclusion of any other person to the conference shall be at the discretion of the Conduct Officer.
3. Pertinent records, exhibits, and written statements, including personal impact statements, may be accepted as information for consideration. The Complainant and the Respondent shall be allowed to review and respond to any reports or statements the Conduct Officer will consider as the basis for the charges or determination of evidence related to the conference.
 - a. Reports may be redacted in order to protect the privacy of educational records of all parties involved.
4. The Complainant and the Respondent will have the opportunity to present his/her own version of the incident or events by personal statements, as well as through written statements from witnesses and other forms of documentation or information.
5. If a Respondent, with notice, does not appear for the conference, a decision may be made in their absence taking into consideration the totality of the information related to the charges available at the time of the conference.
6. For official purposes of the University Conduct process there may be a single verbatim record of the proceedings maintained by the University. This record shall remain the property of the University and will not be disseminated. A student may request a review of the recording in accordance with the Community Standards and Wellness records request procedures. Students are not permitted to video record any conduct proceedings.
7. In disputed cases, the Complainant and/or the Respondent may provide written statements from witnesses and/or ask for relevant witnesses to be contacted by the Conduct Officer. Witnesses shall be present only during the time they are presenting information in the conference. Witnesses will provide information to and answer questions directed from the Conduct

Officer. Questions may be suggested by the Respondent and/or Complainant to be answered by each other or by witnesses. Witnesses cannot be compelled to participate in the conduct process.

In order to preserve the educational tone of the conference and to manage the proceedings appropriately, the Conduct Officer may ask that all questioning be directed through him/her and use discretion related to limiting repetitive information and/or statements. All procedural questions are subject to the final decision of the Associate Vice Chancellor of Student Affairs or her/his designee.

8. If information presented in the conference creates additional need for clarification or investigation, or to accommodate irresolvable scheduling conflicts with key witnesses, the Conduct Officer may reschedule the conference.
9. If the conference involves more than one Respondent, the Conduct Officer, in his or her discretion, may permit the conferences concerning each student to be conducted either jointly or separately.
10. The Conduct Officer may accommodate availability and/or remote location of witnesses through conference phone calls or other alternate means. Accommodations may also be made related to concerns for the personal safety, well-being, and/or fears of confrontation of the Complainant, Respondent, and/or other witness during the conference by providing separate facilities, by using a visual screen, and/or by permitting participation by telephone, videophone, closed circuit television, video conferencing, videotape, audio tape, written statement, or other means, where and as determined in the sole judgment of the Conduct Officer to be appropriate.
11. Formal rules of process, procedure, or evidence as established and applied in the civil or criminal justice system do not apply to this process.

E. Decisions

After the conference concludes, the Conduct Officer will review all pertinent information and make a determination related to each of the charges specified from the Student Code of Conduct. The determination is based on the preponderance of evidence standard, *whether it is more likely than not* that the respondent violated the Student Code of Conduct. The charged student and an alleged victim may provide an impact statement or character references for consideration during the sanction process.

1. Written notice of the Conduct Officer's decision will generally be sent to the student within fifteen (15) business days of the conference. The notification shall consist of the determination of responsibility, level of discipline imposed, and a complete description of any sanctions or requirements. In disputed cases, when the Respondent is found responsible for the charges, the notification will also include a summary of the basis for the determination.
2. Conduct Officers may communicate conduct outcomes with appropriate campus offices when relevant to academic, financial, student involvement, or safety issues.

F. Sanctions

Sanctions imposed for misconduct will be based upon a consideration of all of the circumstances in a particular case. Mitigating and aggravating circumstances will be considered. Repeated violations are likely to result in progressively severe sanctions. One or more of the sanctions below may be imposed. In all cases, the conduct officer reserves the right to use their discretion in determining the appropriate sanction

for a case. All decisions regarding responsibility and appropriate sanctions will be given to a student in writing.

Conduct Officers have the authority to determine the appropriate level of disciplinary action taking into consideration the severity of the infraction, impact on individuals or the community, and the past record of discipline. In addition to the sanctions listed below, the Conduct Officer may place limits or conditions, require relocation within or removal from Campus Village, restitution, community service, and/or specify participation in educational programs and interventions. These include but are not limited to, those related to alcohol or drug use, ethical decision making, personal counseling, community issues, and restorative justice.

The following sanctions may be applied when appropriate to individual students. More than one of the sanctions listed below may be imposed for any single violation. Failure to complete disciplinary sanctions within required deadlines will result in a hold being placed on the student's registration status. These sanctions may include but are not limited to:

1. **Warning or Written Reprimand.** A student may be given a warning or written reprimand for minor infractions.
2. **General Disciplinary Probation.** Probation is for a designated period of time during which the student is required to show appropriate changes in attitude and behavior. Specific sanctions or restrictions may be imposed as a part of this sanction but do not result in loss of good standing with the University. A violation of the terms of General Disciplinary Probation, or subsequent misconduct after discipline, is grounds for further disciplinary action, including loss of good standing, suspension, or expulsion.
3. **Disciplinary Probation/Loss of Good Conduct Standing.** Probation is for a designated period of time in which appropriate changes in attitude and behavior are expected to occur. Specific sanctions or restrictions may be imposed as a part of this probation. A student on this disciplinary probation is not in good standing with the University. Good standing, shall include but not be limited to, a requirement for eligibility to represent the University, to serve on a University committee, to participate in club sports or student organizations, and for recognition by the University including any office held in a student organization. A violation of the terms of disciplinary probation, or subsequent misconduct, is grounds for further disciplinary action, including suspension, or expulsion.
4. **Discretionary/Educational Sanctions.** Educational programs or assignments, Restorative Justice, mediation, community service, individual assessment, counseling, substance abuse education, intervention or treatment, testing, or other related discretionary sanctions may be offered or required.
5. **Restitution.** Compensation for loss, damage, or injury. This may take the form of appropriate service or monetary or material replacement.
6. **Residential Reassignment.** A student may be reassigned to another student housing room when disruption has occurred in the Campus Village or in order to separate persons on a temporary or permanent basis. The student will be responsible for all costs and fees associated with relocation as a result of this sanction.
7. **Residential Termination/Eviction.** Permanent separation of the student from Campus Village as a result of a student conduct conference. The University expects students who live in student housing and manage their behavior to comply with all policies. If a first year student is evicted or

removed from the Campus Village, the Conduct Office will determine if the student may be allowed to continue as a student.

8. **Disciplinary Suspension.** Suspension for a distinct period of time and/or the specification that a student must fulfill certain requirements before re-admission or re-instatement will be considered to any CU campus. While suspended, the student is not entitled to attend classes, use University facilities, participate in University activities, or be employed by the University. Special conditions may be stipulated for reinstatement at the conclusion of the period of suspension. The student is not in good standing with the University during the term of the suspension.
9. **Suspension in Abeyance.** A suspension may be held in abeyance or deferred under special conditions in which the student participates in a designated program as a condition to remain in school under a strict probationary status.
10. **Disciplinary Expulsion.** Expulsion is permanent removal from the University with no opportunity to return to any CU Campus.
11. **Revocation of Admission or Degree.** Admission to or a degree awarded from the University may be revoked for fraud, misrepresentation, or for other serious violations committed by a student prior to matriculation or graduation.
12. **Withholding of Degree.** The University may withhold awarding a degree otherwise earned until the completion of the process set forth in this Student Code of Conduct, including the completion of sanctions imposed.
13. **Parental Notification.** Parents may be notified of disciplinary decisions when a student under the age of 21 is found responsible for engaging in an infraction(s) involving alcohol, drugs, or the threat or use of violence. Letters are sent to the primary parent address provided to the University.
14. **Exclusion/Trespass.** The student is denied access to all or a portion of campus. Unless otherwise noted, exclusion includes all buildings and property on the Auraria Campus and any building owned or operated by CU Denver. When a student is excluded from campus, that student may be permitted onto campus for limited periods and specific activities with the permission of the Director of Community Standards or his/her designee. Should the student enter campus without permission, action may be taken by the police for trespass, including arrest.
15. **Interim Suspension.** The Chancellor, Provost and the Associate Vice Chancellor for Student Affairs have the authority to suspend on an interim basis, pending final disposition of the case, any student when, in the opinion of these officials, such a suspension is necessary to:
 - a. Maintain order on the campus;
 - b. Preserve the orderly functioning of the University;
 - c. Stop interference in any manner with the public or private rights of others on University premises;
 - d. Stop actions or potential actions that threaten the health or safety of any person; or
 - e. Stop actions or potential actions that destroy or damage property of the University, its students, faculty, staff, or guests.

Interim suspension will also include excluding the student from campus pending a final outcome. This exclusion begins immediately upon notice from the appropriate University employee, without a conference with a Conduct Officer. A conference with a Conduct Officer is then scheduled as soon as possible (usually within 10 calendar days) to determine how the case will continue and to begin the conduct process. In extreme matters, an interim suspension may be put in place until a student receives a final disposition in a court process after having been charged with a serious crime.

G. Appeal of a Disciplinary Decision

A student may only appeal if s/he has received a sanction including loss of good standing, housing termination, suspension, or expulsion. A decision reached by a Conduct Officer may be appealed to an Appeal Officer by either the Respondent(s) or Complainant(s). For an appeal to be considered it must meet at least one of the criteria listed below.

The appellant shall submit a written request for an appeal through the Community Standards and Wellness website. The appeal must be specific and clearly state the reasons for the request. The appeal request shall be submitted within three (3) business days of the date the appellant is notified of the decision rendered by the Conduct Officer. Failure to submit a request for appeal within the specified time will render the decision of the Conduct Officer final and conclusive. An extension may be granted at the discretion of the Conduct Officer.

1. Except as necessary to explain the basis of new information, an appeal shall generally be limited to a review of the record of the conference and supporting

documents for one or more of the following reasons:

- a. To determine whether the conference was conducted fairly in light of the charges and information presented, and in conformity with proscribed procedures giving both the Respondent and complaining parties the opportunity to prepare and present relevant information to be considered in the determination of an appropriate outcome. Minor deviations from designated procedures will not be a basis for sustaining an appeal unless there is a demonstrable adverse effect on the outcome of the conference.
- b. To determine whether the sanctions(s) imposed were appropriate for the violation of the Student Code of Conduct which the student was found to have

committed.
- c. To consider new information, sufficient to alter the decision or other relevant facts not brought out in the original conference, because such information

and/or facts were not known to the person appealing at the time of the original conference. This does not include information that was known at the time

of the conference but was not shared.

2. The Appeal Officer will review the written request for appeal to determine if the acceptable grounds for the appeal are met. After review of the appellant's request, which may include but is not limited to review of the record, the Appeals Officer shall take one of the following actions:
 - a. If the appeal does not meet one or more of the stated criteria the appeal will be denied.
 - b. Affirm the decision: the Appeals Officer agrees that the information before him or her supports the decision reached by the Conduct Officer.
 - c. Return the case to the original Conduct Officer, or another Conduct Officer for further consideration.
 - d. Overturn the decision or adjust the sanctions assigned by the original Conduct Officer.

3. When questions of law arise, the Appeal Officer may consult with University Legal Counsel.
4. If an appeal is returned to a Conduct Officer to consider new information, the general process outlined under conference procedures will be used.
5. The Appeals Officer will communicate his or her decision in writing. The matter shall be considered final and binding upon all involved unless the matter is returned
for further consideration.

H. Additional Information

1. Student disciplinary records will be maintained in accordance with the Federal Family Educational Rights and Privacy Act of 1974 (FERPA) and subsequent amendments and the guidelines for implementation. The record of disciplinary actions will be kept by the Community Standards and Wellness office. Disciplinary records are actively maintained for a minimum period of seven years from the date of graduation or withdrawal from the University. Expulsion is a permanent notation on the official transcript. Information regarding a student's disciplinary record is available to persons or offices internal to the University or at institutions where a student seeks to enroll who have a "demonstrated educational need to know". Disclosure of disciplinary records outside of the above listed entities generally requires a written release from the student. This may also include notifying parents and releasing written documentation relating to the process.
2. Every student may review, upon request, all non-confidential contents of his/her conduct file, to the extent permitted by law.
3. Release of Conduct information
 - a. Provisions of the Family Educational Rights and Privacy Act of 1974, as amended by the Higher Education Amendments of 1998, govern access to a student's educational record, which includes their academic transcript and conduct file. The student and/or those university officials who demonstrate a legitimate educational need for disciplinary information may have access to the student's conduct file. Parent(s) who provide proof that a student is a dependent as defined in Section 152 of the Internal Revenue Code of 1954, i.e., a copy of the last Federal income tax return listing the student as a dependent, can have access to the student's conduct file without written consent of the student. In this case, parents may also have access to a conduct file even if the student has requested otherwise.
 - b. In addition, parent(s) may be notified if a student under 21 years of age is found responsible for a violation involving alcohol or other drugs. All other inquiries, including, but not limited to, inquiries from employers, government agencies, news media, family, friends, or police agencies, require a written release from the student before access to university conduct files is granted. Information may be released pursuant to a lawfully issued subpoena and as provided by the Campus Security Act as amended by the Higher Education Amendments of 1992.
 - c. The Campus Security Act permits higher education institutions to disclose to alleged victims of any crime of violence (murder, robbery, sexual assault, assault, burglary, motor vehicle theft, arson) the results of the conduct proceedings conducted by the institution against an alleged perpetrator with respect to such crime.

4. Transcript Notations and Holds

- a. Notations of disciplinary action on the student's transcript will only be made by the Office of Community Standards and Wellness.
 - i. Disciplinary expulsion will be permanently noted on the academic transcript.

5. Pending Discipline Hold

- a. While conduct proceedings are pending, the University may place a hold on the student's records. The disciplinary hold is honored by the University of Colorado System, including CU Online and Extended Studies, and prohibits the student from registering for classes until the conduct process has been completed. The hold prohibits the academic transcript from being released until all actions have been completed.
- b. A disciplinary suspension hold shall be placed on a student's record if they are suspended as the outcome of the conduct proceedings. A conduct hold is honored by all University of Colorado campuses and prohibits a student from being admitted to any of the campuses and from registering for classes until the suspension period is over and all sanctions have been completed.

6. Refund Policy After Disciplinary Action

- a. If a student is suspended or expelled from the university, assessment or refund of tuition and fees are made in the same way as when a student voluntarily withdraws. The date used for determining the amount due will be the first day of the suspension or expulsion, as decided upon by the Conduct Officer.

I. Resources

Student and Community Counseling Center

North Classroom Building, Room 4036

303-556-4372

<http://www.ucdenver.edu/life/services/counseling-center>

Offers counseling programs and activities for all members of the university. All contacts are confidential.

Ombuds Office

CU Denver Building, Room 107

303-556-4493

<http://www.ucdenver.edu/about/departments/OmbudsOffice/Pages/OmbudsOffice.aspx>

Assists students, faculty, and staff in resolving complaints or disputes with other individuals, offices, or departments within the university. Does not maintain records and is independent of any department or office. All contacts are confidential.

Phoenix Center at Auraria

Tivoli Student Union, Room 227

303-556-6011

<http://www.thepca.org>

The Phoenix Center at Auraria (PCA) serves CU Denver and CCD communities. The Center provides **free and confidential** resources and assistance to survivors of interpersonal violence and their friends and families. The PCA provides victim advocacy and support that includes academic advocacy, assistance reporting to your school and/or police, safety planning, court/hospital/police accompaniment, and a listening ear.

Health Center at Auraria

Plaza Building, Suite 150

303-556-2525

<http://www.mscd.edu/healthcenter>

Auraria Police Department

Administration Building, Suite 110

303-556-5000

<http://www.ahec.edu/police.html>

Maintains a full-service police department. Officers, who are state certified, respond to reports of criminal acts and emergencies both on and off campus.

Office of Diversity and Inclusion

North Classroom, Suite 2008

303-556-2065

<http://www.ucdenver.edu/about/departments/DCODI/Pages/DenverCampusOfficeOfDiversityAndInclusion.aspx>

Gay, Lesbian, Bisexual, Transgender Student Services

Tivoli Student Union, Suite 213

303-556-6333

<http://www.mscd.edu/glbts>

Appendices

APPENDIX 1: Background, Definitions and Procedures for Sexual Misconduct, Sexual Harassment, and Nondiscrimination Policy
Contact Information For Title IX Officers and Investigators

The Title IX Coordinator for the Denver Campus is:

Dr. Raul Cardenas, Associate Vice Chancellor of Student Affairs

Phone number: 303-315-2110

Email address: Raul.cardenas@ucdenver.edu

Office address: Lawrence Street Center, 14th Floor Denver, CO 80202;

Mailing address: Campus box 146

The Title IX Coordinator for the Anschutz Medical Campus is:

Dr. Regina Kilkenny, Associate Vice Chancellor, Office of Academic Resources & Services

Phone number: 303-724-8070

Email address: Regina.kilkenny@ucdenver.edu

Office address: Education II North, Room 5101;

Mailing address: Campus Box A095

All student complaints will be referred to or can be filed with

Tara Buckley, Title IX Investigator & Trainer

Phone number: 303-315-0140

Email address: Tara.buckley@ucdenver.edu

All other complaints will be referred to or can be filed with

Becka Hill, Employment Rights Compliance & Investigation Officer

Phone number: 303-315-2724

Email address: Becka.hill@UCDenver.edu

The University of Colorado Denver is required by Title IX law and applicable guidance to adopt and publish grievance procedures for students explaining a process for prompt and equitable resolution of sex discrimination complaints.

The University of Colorado Denver is committed to maintaining a positive learning, working and living environment for its entire community. The University does not discriminate on the basis of race, color, national origin, sex, age, disability, creed, religion, sexual orientation, or veteran status in admission and access to, and treatment and employment in, its educational programs and activities (Regent Law, Article 10). The University will not tolerate acts of sex discrimination and retaliation (CU Denver Administrative Policy Statement Sexual Harassment).

In 1972, federal law was passed with the intention to end sex discrimination in all areas of education. Title IX of the Education Amendments of 1972 states:

“No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving federal financial assistance.” **(Title 20 U.S.C. Sections 1681-1688)**

Sexual harassment and sexual violence are forms of sex discrimination as defined by the “Dear Colleague Letter” issued by the Department of Education and its Office of Civil Rights, on April 4, 2011, as further clarification of the Title IX law. Students have a right to attend educational programs and activities at an institution, free of sex discrimination, sexual harassment, and sexual violence. Additionally, Title IX law prohibits acts of retaliation against any person who files a complaint and/or is involved in the process of investigating allegations of sex discrimination. The University is committed to taking prompt and effective actions to end discrimination, prevent its reoccurrence, and remedy the effects upon the victims and community.

When cases of alleged harassment involve issues of speech and expression, the First Amendment must be considered. Individuals have a right to freedom of speech that applies in the classroom and in educational programs and activities. In order to establish a violation of campus rules that may fall within the scope of Title IX, the harassment must rise to a level that it limits or denies his or her ability to participate in or benefit from the education program. Title IX is not intended to regulate the content of speech.

The University employs trained staff members who have responsibility for Title IX compliance which includes investigating allegations of sex discrimination and retaliation. **To file a complaint or raise a question about Title IX**, please contact one of the Title IX officers listed below. The Title IX Coordinator oversees the development, implementation, and evaluation of Title IX policies, procedures, and training efforts and will refer all complaints to the appropriate Investigator.

In addition to publishing grievance procedures, the University has implemented policies and procedures prohibiting sexual harassment and sexual misconduct.

Sexual Harassment

- For further information, please review the University’s Sexual Harassment Policy and Procedures document: <https://www.cu.edu/policies/aps/hr/5014.pdf>

Sexual Misconduct

- For Denver Campus Students:** Prohibited student conduct and the student conduct process are explained in the Student Code of Conduct: <http://www.ucdenver.edu/life/services/standards/Pages/default.aspx>

A. Definitions—Sexual Misconduct

Sexual misconduct may vary in its severity and consists of a range of behavior or attempted behavior. It can occur between strangers or acquaintances, including people involved in an intimate or sexual relationship. Sexual misconduct can occur between members of the same or different gender and can also occur while individuals are fully clothed.

1. **Non-consensual sexual intercourse:** Non-consensual sexual intercourse is any sexual intercourse (anal, oral or vaginal), including sexual intercourse with an object, however slight, by one person upon another without consent and/or by force.
2. **Non-consensual sexual contact:** Non-consensual sexual contact is any sexual touching (including touching with an object) however slight, by one person on another without consent and/or by force.
3. **Sexual exploitation and/or exposure:** Sexual Exploitation is when a student takes non-consensual, unjust, or abusive sexual advantage of another for his/her own pleasure, advantage or benefit, or to pleasure, benefit or advantage anyone other than the one being exploited. Sexual Exposure occurs when a student engages in lewd exposure of the body done with the intent to arouse or satisfy the sexual desire of any person.
4. **Consent.** Consent between two or more people is defined as an affirmative agreement--through clear actions or words--to engage in sexual activity. Consent is informed, knowing and voluntary. Consent is active, not passive. Silence, in and of itself, cannot be interpreted as consent. Consent can be given by words or actions, as long as those words or actions create mutually understandable permission regarding the conditions of sexual activity.
 - a. **What Consent Means.** Consent to one form of sexual activity cannot imply consent to other forms of sexual activity. Previous relationships or consent cannot imply consent to future sexual acts. Consent cannot be procured by use of physical force, compelling threats, intimidating behavior, or coercion. Consent can be withdrawn at any time.
 - b. In order to give effective consent, one must be of legal age. Consent may never be given by
 - i. A minor to an adult.
 - ii. Mentally disabled persons when the mental disability is known or reasonably should have been known.
 - c. **Additional Clarifying Rules of Consent.** (a) A person who is the object of sexual aggression is not required to physically or otherwise resist a sexual aggressor. (b) Silence, previous sexual relationships, and/or the existence of a current relationship with the respondent do not imply consent. (c) Consent cannot be implied by attire, or inferred from the giving or acceptance of gifts, money or other items. (d) Consent to sexual activity may be withdrawn at any time, as long as the withdrawal is communicated clearly. Withdrawal of consent can be done in numerous ways and need not be a verbal withdrawal of consent. (e) A respondent's intentional use of alcohol/drugs does not excuse a violation of policy.
5. **Threats.** Threats exist where a reasonable person would have been compelled by the words or actions of another to give permission to sexual contact they would not otherwise have given, absent the threat. For example, threats to kill you, themselves, or to harm someone you care for constitute threats.

6. **Incapacity.** If you have sexual activity with someone you know to be, or should know to be mentally or physically incapacitated (by alcohol or other drug use, unconsciousness or blackout), you are in violation of this policy. Incapacitation is a state where one cannot make a rational, reasonable decision because they lack the ability to understand the who, what, when, where, why or how of their sexual interaction. This policy also covers someone whose incapacity results from mental disability, sleep, involuntary physical restraint, or from the taking of a so-called “date-rape” drug. Possession, use and/or distribution of any of these substances, including Rohypnol, Ketamine, GHB, Burundanga, etc. is prohibited, and administering one of these drugs to another student for the purpose of inducing incapacity is a violation of this policy. More information on these drugs can be found at <http://www.911rape.org/>
7. **Intimidation.** Occurs when someone uses their physical presence to menace you, although no physical contact occurs, or where your knowledge of prior violent behavior by an assailant, coupled with menacing behavior, places you in fear as an implied threat.
8. **Coercion.** Coercion is unreasonable pressure for sexual activity. Coercive behavior differs from seductive behavior based on the type of pressure someone uses to get consent from another, the repetition of the coercive activity beyond what is reasonable, the degree of pressure applied, when someone makes clear to you that they do not want sexual activity, that they want to stop, or that they do not want to go past a certain point of sexual interaction, continued pressure beyond that point can be coercive.
9. **Force.** The use of physical violence and/or imposing on someone physically to gain sexual access. Force also includes, threats, intimidation, (implied threats), and coercion that overcomes resistance or produce consent.

B. Definitions—Sexual Harassment

1. **Sexual Harassment.** Unwelcome, gender-based verbal or physical conduct that is sufficiently severe, persistent or pervasive that it has the effect of unreasonably interfering with, limiting or denying someone the ability to participate in or benefit from the university’s educational program. The unwelcome behavior may be based on power differentials (quid pro quo), the creation of a hostile environment or retaliation. Examples include: an attempt to coerce an unwilling person into a sexual relationship; to repeatedly subject a person to egregious, unwanted sexual attention; to punish a refusal to comply; to condition a benefit on submitting to sexual advances; sexual violence; intimate partner violence, stalking; gender-based bullying. For the purpose of this policy “unwelcome” means the employee or student did not solicit or invite the conduct and regards it as undesirable.
2. **Hostile Environment Sexual Harassment.** Unwelcome sexual conduct that is sufficiently severe or pervasive that it alters the conditions of education or employment and creates an environment that a reasonable person would find intimidating, hostile or offensive. The determination of whether an environment is “hostile” must be based on all of the circumstances. These circumstances could include the frequency of the conduct, its severity, and whether it is threatening or humiliating.
3. **Retaliatory Harassment.** Any adverse employment or educational action taken against a person because of the person’s participation in a complaint or investigation of discrimination or sexual harassment.

C. Definitions—Protected Class Discrimination and Harassment

1. **Protected Classes.** Class based on race, color, national origin, sex, age, disability, creed, religion, sexual orientation, gender identity, gender expression, pregnancy, and veteran status.
2. **Discrimination.** Occurs when an individual suffers an adverse consequence, such as failure to be hired or promoted, denial of admission to an academic program, etc., on the basis of her/his Protected Class.
3. **Harassment.** Verbal or physical conduct based upon an individual's Protected Class that unreasonably interferes with that individual's work or academic performance or creates an intimidating or hostile work or educational environment.
4. **Hostile Environment.** Unwelcome conduct by an individual(s) against another individual based upon her/his Protected Class that is sufficiently severe or pervasive that it alters the conditions of education or employment and creates an environment that a reasonable person would find intimidating, hostile or offensive. The determination of whether an environment is "hostile" must be based on all of the circumstances. These circumstances could include the frequency of the conduct, its severity, and whether it is threatening or humiliating. Simple teasing.

D. Definitions—Stalking

1. **Stalking** is the repetitive and/or menacing pursuit, following, harassment and/or interference with the peace and/or safety of a member of the community; or the safety of any of the immediate family of members of the community.
 2. **Stalking Behavior.** Stalking includes any behaviors or activities occurring on more than one occasion that collectively instill fear in a victim, and/or threaten her or his safety, mental health, or physical health. Many of the behaviors are also Title IX or student conduct violations in their own right. When they occur as a pattern of behavior, together they are defined as stalking. Such behaviors and activities may include, but are not limited to, the following:
 - Non-consensual communication, including face-to-face communication, telephone calls, voice messages, e-mails, written letters, gifts, or any other communications that are undesired and place another person in fear.
 - Use of online, electronic, or digital technologies, including:
 - o Posting of pictures or information in chat rooms or on Web sites, blogs, social network sites, etc.
 - o Sending unwanted/unsolicited email or talk requests
 - o Posting private or public messages on Internet sites, social networking sites, and/or school bulletin boards
 - o Installing spyware on a victim's computer
 - o Using Global Positioning Systems (GPS) to monitor a victim
- Pursuing, following, waiting, or showing up uninvited at or near a residence, workplace, classroom, or other places frequented by the victim
- Surveillance or other types of observation,
 - including staring or "peeping"

- Trespassing/Vandalism
- Non-consensual touching
- Direct verbal or physical threats
- Gathering information about an individual from friends, family, and/or co-workers
- Threats to harm self or others
- Defamation – lying to others about the victim

E. Investigation Process for Resolving Complaints or Reports of Sexual Misconduct, Sexual Harassment, Protected Class Discrimination and Harassment, and Stalking

If you believe you have experienced a form of sex discrimination, sexual harassment, sexual violence, and/or retaliation, it is important to tell someone so you can get to the appropriate resources. Confidential on-campus resources are: 1) The Phoenix Center at Auraria: 303-556-6011 and 303-556-CALL (2255) for 24 hour support, 2) CU Denver Counseling Clinic: 303-556-4372, and 3) Ombuds office: 303-556-4493.

Discussing an allegation of sex discrimination and retaliation with any other official at the University may trigger that official's responsibility to report to the University as it is defined in the University's Sexual Harassment Policy and Procedures. Since employees have a duty to report, your confidentiality may not be guaranteed. However, it is important for the University to become aware of such allegations so that it may take appropriate steps as necessary.

You may file a Title IX complaint directly with one of the Title IX officers at the University. If you decide to file a Title IX complaint including allegations about misconduct, you would be considered the Complainant. The Respondent is the person against whom the allegations have been made.

If the alleged incident has occurred on-campus, you may also contact the Auraria Police Department at 303-556-5000. If the alleged incident has occurred off-campus, you may also contact the Denver Police Department at 720-913-2000. University officials, including the confidential resources listed above can provide you assistance and support to report to Title IX officers and law enforcement. If you report to law enforcement first, you will need to give consent for them to refer cases to the Title IX officers at the University. A Complainant can file complaints with the University and law enforcement at the same time, however, the timeliness of the investigation may be different. Additionally, students may file a complaint with the Office of Civil Rights of the U.S. Department of Education

(<http://www.hhs.gov/ocr/civilrights/complaints/index.html>).

The University of Colorado Denver has the ability to address allegations of sex discrimination, sexual harassment, sexual violence, and retaliation in a noncriminal context. The CU Denver process is separate from law enforcement or the judicial system. If a University official has enough reason to believe a crime has been committed, he or she may be obligated to report the allegation to the police, if they have not yet been contacted.

The identity of the Respondent determines who the primary Investigator will be for the complaint. If the Respondent is a CU Denver student, the Title IX Investigator for Students will investigate the complaint and determine if a violation to the University's Sexual Harassment policy has occurred. Also, the Office of Community Standards and Wellness will review the facts outlined in the investigation report to determine if a violation to the Student Code of Conduct has occurred. Student safety is the primary concern, therefore any alcohol or drug violations by the Complainant will be handled informally and usage does not make the Complainant at fault for sexual violence. A conduct officer will review the factual information provided in the written report and determine a finding based a "preponderance of the evidence" standard. A

preponderance of evidence means what happened is more likely than not, or “50% plus a feather.” The Office of Community Standards and Wellness will use its standard procedures for review and may impose sanctions, when appropriate. Please refer to the applicable Student Code of Conduct for more information.

When the complaint involves two or more University of Colorado campuses or other institutions on the Auraria Campus, the complaint will be handled by the campus with disciplinary authority over the Respondent. The campus responsible for the investigation may request the involvement or cooperation of any other affected campus and should advise appropriate officials of the affected campus of the progress and results of the investigation.

If the Respondent is an employee, Human Resources will be involved in the investigation process and one of their Investigators will work with the Title IX Investigator for Students and the Office of Community Standards and Wellness to investigate the complaint. If you are uncertain whether the Respondent is a student or an employee, you can make a report to either of the Title IX officers. If the Respondent is not a student or employee, CU Denver can help you connect with appropriate on-campus and off-campus resources.

Once they have notice of alleged sexual discrimination of students, the Title IX Investigator and other qualified University Officials will determine if initial remedial actions need to be taken in order to attempt to alleviate issues regarding Complainant’s personal safety. Initial remedial actions will differ for each complaint and be tailored to address the unique needs of the parties involved. The Title IX Investigator will review the initial facts and make a determination that is consistent with the best interests of all the parties involved. The Title IX Investigator and other qualified University Officials will also assess their duty to warn others on and/or off the campus if appropriate under the circumstance of the allegation. They also may initiate an interim suspension of the Respondent based upon the severity of the initial evidence regarding the alleged complaint.

The Title IX officers and other appropriate University employees will review the alleged complaint and determine if there is enough initial evidence to move forward with an investigation under the University’s Sexual Harassment Policy and Procedures. If an Investigator feels an investigation is warranted then one will begin as soon as possible.

When the decision has been made to conduct an investigation, the University will determine the appropriate timeline and plan of action to address the alleged complaint. Some complaints of sexual harassment may be resolved through the use of informal mechanisms. The Complainant can decide at any point to move from an informal process into a formal investigation process. If the alleged complaint results in a formal investigation, the University may have one of their trained Investigators, may use more than one Investigator, and may invite trained professionals from outside of the University to investigate an alleged complaint. In some cases, such as complaints of alleged sexual assaults, mediation will not be appropriate, even on a voluntary basis.

When the complaint results in a formal investigation, the Complainant and Respondent will receive a written notice of investigation. The notice will provide a description of the alleged conduct and the alleged violations to the University’s Sexual Harassment Policy and Procedures policy. Both parties will be requested to attend at least one meeting with a Title IX Investigator. The Title IX Coordinator and the Chancellor are also notified of the investigation.

A Complainant may decide to withdraw his or her complaint. Choosing not to participate in the investigation process may significantly limit the University’s ability to respond to the alleged complaint. Based upon the initial information provided, the University may need to proceed forward with the investigation in order to keep the campus safe. A Complainant can decide to initiate the complaint again at a future time.

Barring extenuating circumstances, the University will make every effort to conduct an investigation and resolve the alleged complaint within 60 calendar days, upon receipt of the notice. The Complainant and Respondent will be contacted about changes made to proposed timelines.

The Complainant and the Respondent may have a person (parent, advocate, lawyer, adviser, etc.) present during any meeting to provide support. The support person may not speak on behalf of the Complainant or Respondent. The Complainant and Respondent may provide evidence and the names of witnesses that are relevant to the complaint. The Title IX Investigator will keep written and audio recordings of the meetings. The Complainant and Respondent are not required to question each other or meet face to face at any time throughout the investigation process. If the either student chooses to not attend a meeting on the date specified in the notice, or if either student chooses to attend but does not participate, the Title IX Investigator may complete the investigation based on the information obtained.

When the investigation is complete, the Title IX Investigator shall prepare a written report that shall include a statement of factual findings based upon the information and evidence provided by the Complainant, Respondent, and any witnesses involved. The University will maintain a case file of the final written report and all other relevant documentation, such as evidence, transcriptions, and audio-recordings.

The Title IX Investigator will send the written report to a standing review committee, trained in reviewing reports that result in Title IX investigations. This review is limited; the standing review committee may consult with the Title IX Investigator, the Title IX Coordinator, or other relevant University officials, may request further investigation needs to be done, and/or may request a different Investigator conduct the investigation again. The standing review committee may adopt the Investigator's report as its own or may prepare a separate report based upon the findings of the investigation. The standing review committee may not conduct an investigation or hearing.

Once the standing review committee approves the final written report, they will send it back to the Title IX Investigator. The Title IX Investigator will send a copy of the report to the Title IX Coordinator and forward the report to The Office of Community Standards and Wellness to initiate the conduct process if necessary. The student conduct process is outlined in greater detail in the Student Code of Conduct:

<http://www.ucdenver.edu/life/services/standards/Pages/default.aspx>

Both parties will be notified concurrently, in writing, about the outcome of the investigation.

The Complainant and Respondent may file an appeal based upon three criteria: 1) procedural error, 2) new evidence, and 3) sanction. The Complainant and Respondent may file an appeal with the Title IX Investigator, who will forward the appeal to the Title IX Coordinator. The Title IX Coordinator will oversee appeals when there is an alleged error in the process and when there is new evidence, unavailable at the time of the investigation, to review. Once the Title IX Coordinator has reached a decision, the Complainant and Respondent will be notified of the final outcome. The Office of Community Standards and Wellness will oversee an appeal of sanctions and their appeal process is outlined in the Student Code of Conduct.

On-Campus Resources:

The Phoenix Center at Auraria:

The Phoenix Center at Auraria, Tivoli 227: pcauraria@gmail.com and 303-556-6011

The Phoenix Center at Auraria Helpline: 303-556-CALL (2255) (24/7)

Lisa Ingarfield, The Phoenix Center at Auraria Associate Director: 303-556-6011,
Lisa.Ingarfield@ucdenver.edu

Community Standards and Wellness

900 Auraria Way, Tivoli 227

303-556-2444

Auraria Police

Administrative Building, Suite 110

303-556-5000

Ombuds Office

CU Denver Building 1250 14th St. Room 110P Denver, CO 80202

303-556-4493

Off-Campus Resources:

Office of Civil Rights: <http://www.hhs.gov/ocr/civilrights/complaints/index.html>

Office of Civil Rights, Denver: Voice Phone (303)844-2024, FAX (303)844-2025, TDD (303)844-3439

Denver Police Non-Emergency: 720-913-2000

Denver Police Victim Assistance Unit: 720-913-6035

Once the standing review committee approves the final written report, they will send it back to the Title IX Investigator. The Title IX Investigator will send a copy of the report to the Title IX Coordinator and forward the report to The Office of Community Standards and Wellness to initiate the conduct process if necessary. The student conduct process is outlined in greater detail in the Student Code of Conduct:

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APPENDIX 2: Parent/Guardian Contact Policy Resulting from FERPA Amendments Related to Section 952:

If a parent or guardian contacts the University seeking information regarding a student's alcohol or drug-related conduct record, and the student is under 21 years of age, information may be shared by an informed, full-time staff member in the Office of Community Standards and Wellness or his/her designee.

The designated staff member will share information regarding any alcohol or drug-related infraction in which a student, afforded due process through the conduct procedures, has been found responsible for the infraction. Parents seeking information regarding behaviors, for which charges are pending or in process, must have their student's written consent to the disclosure.

When the University is aware of an alcohol or drug overdose requiring hospitalization, and the student is personally unable to make contact with family, an informed University staff member may notify the parents or guardians, regardless of whether or not an infraction occurred.

Further, notification to parents/guardians is allowed when:

- The violation involved was of sufficient severity or related to a pattern of drug or alcohol related infractions which warrant a drug or alcohol evaluation; or
- The violation involved was of sufficient severity or related to a pattern of drug or alcohol related infractions which, should a further infraction occur, would likely result in suspension or expulsion from the University; or
- The violation involved harm or threat of harm to self or another person; or
- There was a significant risk to the health or safety of the student as a result of consumption of alcohol or use of drugs.

Any student may request that information not be disclosed to parent/guardians, if the nondisclosure request is related to personal safety or other serious family circumstances. The request must be made in writing to the Conduct Officer, prior to the disposition of the case. The Conduct Officer may, at his or her discretion, honor the non-disclosure request.

In order to best facilitate communication with parents/guardians, Conduct Officers should encourage students to speak first to their parents/guardians regarding conduct issues.

Appendix 3: Good Samaritan Provision

The health and safety of members of the University of Colorado at Denver are the primary concerns of the University. The University is committed to ensuring that students obtain timely medical assistance for themselves and for their peers. To this end, we have instituted a "Good Samaritan" Provision.

The Auraria Campus Police Department will assist those individuals whose judgment or health is severely affected due to alcohol consumption by facilitating transport to a local detox center or hospital, or by taking other protective measures. Students are encouraged to inform local or state police, student housing staff, or security when assistance is needed.

Whenever a student assists an intoxicated individual in procuring the assistance of local or state police, security, residence life staff, or other medical professionals, neither the intoxicated individual, nor the individual who assists will be subject to University disciplinary action (such as probation, suspension in abeyance, suspension or expulsion) with respect to the alcohol incident. (This provision does not preclude disciplinary action regarding other violations of University standards, such as theft, sexual harassment/assault, vandalism, harassment, etc.).

This provision offers a health related response to the incident rather than a disciplinary consequence **and does not excuse or protect those individuals or organizations that deliberately or repeatedly violate the University's Alcohol Policy.**

In order for this policy to apply, the intoxicated student(s) must agree to timely completion of alcohol education activities, assessment, and/or treatment depending on the level of concern for student health and safety. Serious or repeated incidents will prompt a higher degree of medical concern. Failure to complete recommended follow-up may result in disciplinary action and could prompt the imposition of a medical withdrawal. Likewise, organizations involved in an incident must agree to take recommended steps to address concerns.

This provision only governs the application of the University's Student Code of Conduct and has no status in other jurisdictions such as local or state courts. It should also be noted that this provision may only be invoked by a student at the time when his or her case is being heard or investigated by a Conduct Officer or investigator. Based on the totality of the incident, the Conduct Officer will make the final determination as to the applicability of this provision and reserves the right to reduce sanctions or dismiss charges.

The Good Samaritan provision does not limit the authority of law enforcement personnel or University staff to act as required at the time of an alleged violation of University standards or state or local laws.

Appendix 4: Colorado Law Regarding Riots

Section 18-9-101(2), Colorado Revised Statutes states:

“Riot means a public disturbance involving an assemblage of three or more persons which by tumultuous and violent conduct creates grave danger of damage, destruction or death.”

Section 18-9-102, C.R.S. states:

“Inciting riot.

1. A person commits inciting riot if he:
 - a. Incites or urges a group of five or more persons to engage in a current or impending riot; or
 - b. Gives commands, instructions, or signals to a group of five or more persons in furtherance of a riot.
2. A person may be convicted under sections 18-2-101, 18-2-201, or 18-2-301 of attempt, conspiracy, or solicitation to incite a riot only if he engages in the prohibited conduct with respect to a current or impending riot.
3. Inciting riot is a class 1 misdemeanor, but, if injury to a person or damage to property results therefrom, it is a class 5 felony.”

Section 18-9-103, C.R.S. states:

“Arming rioters.

1. A person commits arming rioters if he:
 - a. Knowingly supplies a deadly weapon or destructive device for use in a riot; or
 - b. Teaches another to prepare or use a deadly weapon or destructive device with intent that any such thing be used in a riot.

2. Arming rioters is a class 4 felony.”

Section 18-9-104, C.R.S. states:

"Engaging in a riot.

1. A person commits an offense if he or she engages in a riot. The offense is a class 4 felony if in the course of rioting the actor employs a deadly weapon, a destructive device, or any article used or fashioned in a manner to cause a person to reasonably believe that the article is a deadly weapon, or if in the course of rioting the actor represents verbally or otherwise that he or she is armed with a deadly weapon; otherwise, it is a class 2 misdemeanor.
2. The provisions of section 18-9-102 (2) are applicable to attempt, solicitation, and conspiracy to commit an offense under this section."

Section 23-5-124, C.R.S. states:

“Student enrollment - prohibition - public peace and order convictions.

1. No person who is convicted of a riot offense shall be enrolled in a state-supported institution of higher education for a period of twelve months following the date of conviction.
2. A student who is enrolled in a state-supported institution of higher education and who is convicted of a riot offense shall be immediately suspended from the institution upon the institution's notification of such conviction for a period of twelve months following the date of conviction; except that if a student has been suspended prior to the date of conviction by the state-supported institution of higher education for the same riot activity, the twelve month suspension shall run from the start of the suspension imposed by the institution.
3. Nothing in this section shall be construed to prohibit a state-supported institution of higher education from implementing its own policies and procedures or disciplinary actions, in addition to the suspension in subsection (2) of this section, regarding students involved in riots.
4. The court in each judicial district shall report to the Colorado commission on higher education the name of any person who is convicted in the judicial district of a riot offense.
 - a. The Colorado commission on higher education shall make the conviction reports received pursuant to paragraph (a) of this subsection (4) available to all state-supported institutions of higher education with the notification that the persons included in the conviction reports are subject to the provisions of this section and that the state-supported institution of higher education in which any of such persons are enrolled shall consider appropriate disciplinary action against the student.
5. Each state-supported institution of higher education shall notify its students and prospective students of the requirements of this section. The governing board of each state-supported institution of higher education shall prescribe the manner in which this information shall be disseminated.
6. For purposes of this section, unless the context otherwise requires:
 - a. ‘Convicted’ means having received a verdict of guilty, pleaded guilty or nolo contendere, or having received a deferred judgment and sentence.
 - b. ‘Riot offense’ means:

- i. Inciting riot, as described in section 18-9-102, C.R.S.;
- ii. Arming rioters, as described in section 18-9-103, C.R.S.;
- iii. Engaging in a riot, as described in section 18-9-104, C.R.S.”

Appendix 5: Colorado Law Regarding Hazing

Section 18-9-124(2), C.R.S. defines hazing as follows:

(2) As used in this section, unless otherwise requires:

(a) ‘Hazing’ means any activity by which a person recklessly endangers the health or safety of or causes a risk of bodily injury to an individual for purposes of initiation or admission into or affiliation with any student organization; except that “hazing” does not include customary athletic events or other similar contests or competitions, or authorized training activities conducted by members of the armed forces of the state of Colorado or the United States.

(b) ‘Hazing’ includes but is not limited to:

- (I) Forced and prolonged physical activity;
- (II) Forced consumption of any food, beverage, medication or controlled substance, whether or not prescribed, in excess of the usual amounts for human consumption or forced consumption of any substance not generally intended for human consumption;
- (III) Prolonged deprivation of sleep, food, or drink.

Use of University/Auraria Property or Facilities

Nothing in this code of conduct shall be construed to prevent peaceful and orderly assembly for the voicing of concerns or grievances. The university is dedicated to the pursuit of knowledge through a free exchange of ideas, and this shall be a cardinal principle in the determination of whether or not a proposed use of university facilities is appropriate.

The Auraria Higher Education Center has established campus regulations and procedures governing the use of CU Denver/Auraria grounds, buildings and other facilities. Such regulations are designed to prevent interference with university functions and activities. Except where otherwise specifically authorized, or when members of the public are invited, the use of CU Denver/Auraria facilities shall be limited to faculty, staff and students of the CU Denver/Auraria Campus and to organizations having chapters, local groups or other recognized university-connected representation among faculty, staff or students of the three academic institutions on the Auraria Campus.

Classroom Conduct

Students are expected to conduct themselves appropriately in classroom situations. If disruptive behavior occurs in a classroom, an instructor has the authority to ask the disruptive student to leave the classroom. Should such disorderly or disruptive conduct persist, the instructor should report the matter to the Auraria Campus Police Department and/or the appropriate dean’s

office. The appropriate dean or his/her representative may dismiss a student from a particular class for disruptive behavior, while the student discipline committee may recommend to the director of community standards and wellness to withdraw, suspend, permanently expel and/or permanently exclude the student from the campus. Appeal questions concerning disruptive behavior should be directed to the academic dean's office when withdrawal from a class is involved and to the director of community standards and Wellness when suspension or expulsion from the university is involved.

Tri-Institutional Violations

Procedures in deciding violations of the code of student conduct involving students from other academic institutions on the Auraria Campus have been developed by the Denver Campus and the institution(s) involved. In such cases, the assistant director of student life should be contacted.

Amorous Relationships

Amorous relationships exist when two individuals mutually and consensually understand a relationship to be romantic and/or sexual in nature. The policy requires only that direct evaluative authority not be exercised in cases where amorous relationships exist or existed within the last seven years between two individuals whether the same or opposite sex.

The policy is intended to establish a reporting structure to protect participants in these relationships from violations of university conflict-of-interest guidelines (when a direct evaluative relationship exists between two employees or between an employee and a student). The relationship must be disclosed to the unit head, department chair, dean or head of the primary unit with all parties present. The person to whom disclosure is made must take action to resolve the conflict and must keep the information confidential. The individual in the evaluative position shall recuse her or himself from all future evaluative actions. The parties may choose to have this disclosure in written form placed in their own personnel files. (This information is removed and destroyed seven years after the time of disclosure if requested and if the relationship has ended.) The responsibility to disclose rests with the person in the evaluative position. A report of the action taken to resolve the conflict must be made to the chancellor or designee who may require other action.

When a relationship exists, either current or within the last seven years, between an individual and an employee who, although not his/her direct supervisor but is in a direct line of report (e.g., dean involved with a faculty member in his/her college or a second or higher level supervisor who is involved with a staff member in the unit), the higher-level employee may not act in an evaluative capacity. When these individuals are parties to a personnel action (appointments/hiring, firing/layoff, promotions/demotions, tenure decisions, salary setting, performance appraisals, grievance and disciplinary procedures), the evaluative authority must recuse himself/herself from participating in the action. The action taken to resolve the conflict must be reported to the chancellor or designee.

Please contact the Office of Human Resources at 303-315-2700 for policy clarification and explanation.

Anti-violence

The University of Colorado Denver strives to maintain a campus free of and prohibits violent behavior, including but not limited to verbal and/or physical aggression, attack, threats, harassment, intimidation or other disruptive behavior in any form or by any media, which causes or could cause a reasonable person to fear physical harm by any individual(s) or group(s) against any person(s) and/or property. This policy applies to academic, administrative, research and service departments, programs activities and/or services wherever university business is conducted, including extended studies and international locations.

Employees, students and visitors who engage in prohibited behavior shall be held accountable under university policy, as well as local, state and federal law. Any employee or student who commits or threatens to commit violent behavior shall be subject to disciplinary action, up to and including dismissal or expulsion, as well as arrest and prosecution. Any visitor who commits or threatens to commit violent behavior shall be subject to exclusion from the campus, termination of business relationships and/or arrest and prosecution.

Prohibited Behaviors

Examples of prohibited behaviors may include but are not limited to: (1) disturbing the peace by violent, tumultuous, offensive or obstreperous conduct; (2) engaging in intimidating, threatening or hostile statements or actions; (3) making gestures that convey threats; (4) raising one's voice in anger or using fighting words; (5) uttering ethnic, racial or sexual epithets; (6) using unseemly, profane, offensive or obscene language or making obscene gestures; (7) making bizarre comments about or references to violent events and/or behaviors; (8) waving fists, pushing, stalking, bullying, hazing; (9) engaging in the abusive exercise of legitimate authority; (10) destroying personal property in the workplace; (11) destroying university property; (12) throwing objects at persons or property; (13) physically assaulting or attacking persons or property; (14) engaging in vandalism, arson or sabotage.

Weapons

The possession, display or use of any weapon, including any firearm, or the display or use of any object as a weapon, by any person other than a law enforcement officer in the course of his/her duty, in any location where university business is conducted, is in violation of Regent's Policy (14-I) and is strictly prohibited. Possession of a firearm or weapon on University of Colorado Denver-owned property or the Auraria Campus is cause for immediate termination of employees or expulsion of students.

Reporting Procedures

Emergency or Life-Threatening Situations

In the case of an emergency or life-threatening situation, immediately call 911. A call to 911 will go to the appropriate campus, city or county law enforcement agency. A call to 911 from any campus telephone automatically registers the location of the telephone on which 911 a call was placed, even if no words are spoken.

Nonemergency Situations

In all other situations, notify the Office of Human Resources, 303-315-2700. Before or after normal business hours or if human resources is otherwise unavailable, notify the Anschutz Medical Campus Police at 303-724-4444 or Auraria Police Department at 303-556-5000.

Responsibility to Report

Anyone witnessing or receiving a report of prohibited behavior or possession, display or use of any weapon shall immediately notify the appropriate authority as listed above.

Emergency Notification System

The emergency notification system allows students, faculty and staff to register to receive alerts about threats of imminent danger at or near any CU Denver location. This service is used in conjunction with other communication channels including: public address systems, broadcast e-mail, voice-mail messages to campus telephone extensions, electronic signage, a coordinated use of public media outlets and 24-hour recorded emergency and information hotlines (Anschutz Medical Campus in Aurora 303-724-4636; Downtown/Auraria Campus 303-556-2401). Participants choose from various notification options including text messaging, e-mail, phone, instant messaging, pager, fax and BlackBerry devices. Visit the [website](#) for details.

Drugs and Alcohol Information

Standards of Conduct

The University of Colorado Denver complies with the federal Drug Free Schools and Communities Act. CU Denver does not allow the unlawful manufacture, dispensation, possession, use or distribution of a controlled substance (illicit drugs and alcohol) of any kind and of any amount. These prohibitions cover any individuals actions which are part of university activities, including those occurring while on university property or in the conduct of university business away from the campus.

Health risks associated with the use of drugs and the abuse of alcohol

Alcohol

Alcohol consumption causes a number of marked changes in behavior. Even a low amount can significantly impair the judgment and coordination required to drive a car safely, increasing the likelihood that the driver will be involved in an accident. Low to moderate amounts of alcohol also increase the incidence of a variety of aggressive acts, including spouse and child abuse. Moderate to high amounts of alcohol cause marked impairments in higher mental functions, severely altering a person's ability to learn and remember information. Very high amounts cause respiratory repression and death. If combined with other depressants of the central nervous system, much lower amounts of alcohol will produce the effects described here.

Repeated use of alcohol can lead to dependence. Sudden cessation of alcohol intake is likely to produce withdrawal symptoms, including severe anxiety, tremors, hallucinations, and convulsions. Alcohol withdrawal can be life threatening. Long term consumption of large quantities of alcohol, particularly combined with poor nutrition, can also lead to permanent damage to vital organs, such as the brain and the liver.

Females who drink alcohol during pregnancy may give birth to infants with fetal alcohol syndrome. These infants have irreversible physical abnormalities and mental retardation. In addition, research indicates that children of alcoholic parents are at greater risk of becoming alcoholics than are other youngsters.

Drugs

For a description of the uses and effects of various drugs go to:

[www.justice.gov/dea/pubs/all fact sheets.pdf](http://www.justice.gov/dea/pubs/all%20fact%20sheets.pdf) and www.usdoj.gov/dea/concern/cocaine.html.

Assistance in recognizing and dealing with the abuse of alcohol and illegal drugs

Information from the Department of Health, Alcohol and Drug Division, Licensed Treatment Programs is available at: www.colorado.gov/TreatmentDirectory/interview1.jsf.

Drug and Alcohol Counseling, Treatment or Rehabilitation or re-entry programs

For drug and alcohol related emergencies, call 911.

University employees may contact human resources at 303-315-2700 for more information regarding available resources, programs and services.

All CU Denver faculty and staff members may receive free confidential counseling from the Colorado State Employee Assistance Program (C-SEAP): 1-800-821-8154 or 303-866-4314.

Denver Campus employees and students may contact the university Student and Community Counseling Center at 303-556-2525/North Classroom 4036, for confidential information and/or referrals. Students at the Anschutz Medical Campus may contact the Student Health Office at 303-724-4716 (after-hours, call 720-848-0000), or their respective school student affairs offices for referral information.

Anschutz Medical Campus Student Health: www.ucdenver.edu/life/services/student-health/mental-wellness/Pages/default.aspx

Additional Information

National Institute on Drug Abuse (NIDA) Hotline: 1-800-662-HELP

National Clearinghouse for Alcohol and Drug Information: Substance Abuse Mental Health Services Administration (**SAMHSA**)

E-mail: SAMHSAInfo@samhsa.hhs.gov

Phone: 1-877-SAMHSA-7 (1-877-726-4727)

TTY: 1-800-487-4889

Fax: (240) 221-4292

Mail: SAMHSA's Health Information Network; P.O. Box 2345; Rockville, MD 20847-2345

Websites: store.samhsa.gov, www.cocommunity.net/agency/national-clearinghouse-alcohol-and-drug-information.html

Related Policies

University of Colorado System Alcohol Policy: <https://www.cu.edu/psc/procedures/PPS/PPS-Alcohol.pdf>

CU Denver Alcohol Policy:

http://www.ucdenver.edu/faculty_staff/employees/policies/Policies%20Library/Fiscal/Alcohol_UCDenverCampus.pdf

Legal Sanctions

Federal

See: www.usdoj.gov/dea/agency/penalties.htm

State Drug Laws

State criminal statutes, (which may be generally found under Titles 12 and 18 of the Colorado Revised Statutes) cover the same scope of conduct as the federal laws, and although the sentences and fines are generally less severe than federal law provides, life sentences are possible for repeat offenders. The maximum penalty for the most serious single offense, (manufacture, sale, or distribution) is 16 years in prison and a \$750,000.00 fine. The maximum penalty for the least serious state offense (possession or use of one ounce or less of marijuana) is a fine of \$100.00. The state laws concerning driving under the influence of alcohol (see below) apply equally to driving under the influence of drugs.

Local ordinances such as the Denver, Boulder, Longmont, Louisville and Lafayette municipal codes impose a variety of penalties.

Secondary civil consequences may also flow from criminal drug violations. Property associated with the criminal acts, including homes and vehicles, can be confiscated by the state or the federal governments.

Those who are convicted of felony violations may be barred from governmental employment and from licensed professions such as law, medicine and teaching.

State Alcohol Laws

State laws regulating the production, dispensation, possession, and use of alcohol may be found in Title 12 of the Colorado Revised Statutes. Perhaps the most significant aspect for CU Denver is the prohibition of the distribution of alcoholic beverages to any person under the age of 21, to a visibly intoxicated person, or to a known alcoholic. State laws also prohibit any form of assistance to these categories of people in obtaining alcoholic beverages. Violation of these laws is a misdemeanor punishable by fines of \$1,000.00 and jail sentences of a year. However, such conduct may, in some circumstances, constitute contributing to the delinquency of a minor, and it could then be determined to be a felony offense punishable by an eight-year prison sentence and a \$500,000.00 fine. Secondary civil consequences for liquor law violations may include ineligibility for liquor and driver's licenses.

Criminal sanctions may also apply to those who operate motor vehicles while under the influence of alcohol and/or drugs. Under Section 42-4-1301 (1) (a), Colorado Revised Statutes, the maximum penalty for such an act is two years in jail and a \$5,000.00 fine.

If a person is injured as a result of someone operating a motor vehicle while under the influence of alcohol and/or drugs, the act is a felony punishable by four years in prison and a \$100,000.00 fine. If a person is killed, the sentence can be eight years in prison with a \$500,000.00 fine. All such convictions also result in the revocation of driving privileges.

State law requires drivers who are stopped by the police for suspected violation of this law to submit to scientific tests which determine the amount of alcohol in their blood, and those who refuse to be tested automatically lose their driver's license. Remember, one need not be "out of control" to be "under the influence." A substantial effect on physical capability is all that is required. Chemical test results combined with the testimony of an expert toxicologist can result in a conviction even when some people may feel minimally intoxicated.

In addition, individuals may face a variety of penalties imposed by municipal ordinances.

Note: This description is intended only to give those who read it a basic, general understanding of the range of serious legal sanctions which can arise from the unlawful possession, distribution and/or use of illicit drugs and alcohol. Individuals who are concerned about specific circumstances should seek the advice of their personal attorney.

Disciplinary sanctions for CU employees who violate drug and alcohol laws in violation of this policy

It is a violation of university policy for any member of the faculty, staff, or student body to jeopardize the operation or interests of the University of Colorado through the use of alcohol or drugs. Sanctions that will be imposed by the University of Colorado for employees who are found to be in violation of this policy may include expulsion and/or termination of employment. Compliance with this policy is a condition of employment for all employees.

Implementation

A copy of the policy statement shall be annually distributed to all current employees and students by e-mail, the university's website, at new student orientation and at a new employee orientation.

Review

The university will conduct a biennial review of the program to determine its effectiveness and to ensure that the disciplinary sanctions described above are consistently enforced. Changes to this program will be implemented as needed. The most recent biennial review was conducted September 2010.

Inclusiveness and Nondiscrimination

The University of Colorado Denver is committed to enhancing the inclusiveness of its work force and its student body. Inclusiveness among students, faculty, staff and administrators is essential to educational excellence and to accomplishing CU Denver's urban mission. Inclusiveness

among faculty, staff and administrators provides role models and mentors for students, who will become leaders in academe and in the larger society, and ensures that a broad array of experiences and world views informs and shapes teaching, research, service and decision making at CU Denver.

Pursuant to Article 10, Laws of the University of Colorado Board of Regents, the university does not discriminate on the basis of race, color, national origin, sex, age, disability, creed, religion, sexual orientation or veteran status in admission and access to, and treatment and employment in, its educational programs and activities. The university takes action to increase ethnic, cultural and gender diversity, to employ qualified disabled individuals and to provide equal opportunity to all students and employees.

All students shall have the same fundamental rights to equal respect, due process and judgment of them based solely on factors demonstrably related to performance and expectations as students. All students share equally the obligations to perform their duties and exercise judgments of others in accordance with the basic standards of fairness, equity and inquiry that should always guide education.

A statement of Article 10 may be found online at <http://www.cu.edu/regents/Laws/Article10.html>. CU Denver procedures for investigating complaints of discrimination may be found online at ucdenver.edu/faculty_staff/employees/policies/Policies%20Library/HR/Nondiscrimination.pdf.

To report a violation of Article 10 or for additional information, contact the CU Denver Equal Opportunity/Affirmative Action Compliance Officer at 303-315-2724; mailing address: EO/AA Compliance Office, CU Denver, P.O. Box 173364, Campus Box 130, Denver, CO 80217-3364.

Disability Accommodation

The Americans with Disabilities Act (ADA) provides that individuals who are otherwise qualified for jobs or educational programs will not be denied access simply because they have a disability. Its goal is to guarantee that individuals with disabilities are not discriminated against or denied equal access to the same programs, services and facilities available to others. The ADA prohibits employers, including CU Denver, from discriminating against applicants and workers with disabilities in all aspects of employment. The act also prohibits the university from discriminating on the basis of disability in access to its programs and services.

The ADA requires that CU Denver provide reasonable accommodations to qualified individuals with disabilities who are employees or applicants for employment, and for persons who participate in or apply for participation in the university's programs and activities. Exceptions to the obligation for providing accommodation may be made if doing so would cause undue financial or administrative burdens, fundamental alteration to a program or activity, or significant risk to health or safety to self and/or others. Additional information regarding the ADA may be obtained online at www.usdoj.gov/crt/ada/adahom1.htm.

If you are a student at CU Denver and need assistance with access to or participation in the academic curriculum, contact the Office of Disability Resources and Services at: 303-556-3450;

TTY 303-556-4766; mailing address P.O. Box 173364, Campus Box 118, Denver, CO 80217-3364.

Reporting Disability Discrimination

Article 10 of the laws of the University of Colorado Board of Regents prohibits discrimination on the basis of disability (or on the basis of membership in other protected classes) in admission and access to, and treatment and employment in, University of Colorado educational programs and activities. To report discrimination or to obtain additional information, contact the CU Denver ADA coordinator, 303-315-2724; mailing address: P.O. Box 173364, Campus Box 130, Denver, CO 80217-3364. Complaints of discrimination based upon disability will be processed according to the provisions of the CU Denver nondiscrimination procedures, which may be found online at:

ucdenver.edu/faculty_staff/employees/policies/Policies%20Library/HR/Nondiscrimination.pdf.

Sexual Discrimination, Sexual Harassment, and Sexual Misconduct

Title IX Grievance Procedures for the University of Colorado Denver

Sex Discrimination, Sexual Harassment, Sexual Violence, and Retaliation

The University of Colorado Denver is required by Title IX law and applicable guidance to adopt and publish grievance procedures for students explaining a process for prompt and equitable resolution of sex discrimination complaints.

The University of Colorado Denver is committed to maintaining a positive learning, working and living environment for its entire community. The University does not discriminate on the basis of race, color, national origin, sex, age, disability, creed, religion, sexual orientation, or veteran status in admission and access to, and treatment and employment in, its educational programs and activities (Regent Law, Article 10). The University will not tolerate acts of sex discrimination and retaliation (CU Denver Administrative Policy Statement Sexual Harassment).

In 1972, federal law was passed with the intention to end sex discrimination in all areas of education. Title IX of the Education Amendments of 1972 states:

“No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving federal financial assistance.” (Title 20 U.S.C. Sections 1681-1688)

Sexual harassment and sexual violence are forms of sex discrimination as defined by the “Dear Colleague Letter” issued by the Department of Education and its Office of Civil Rights, on April 4, 2011, as further clarification of the Title IX law. Students have a right to attend educational programs and activities at an institution, free of sex discrimination, sexual harassment, and sexual violence. Additionally, Title IX law prohibits acts of retaliation against any person who files a complaint and/or is involved in the process of investigating allegations of sex discrimination. The University is committed to taking prompt and effective actions to end discrimination, prevent its reoccurrence, and remedy the effects upon the victims and

community.

When cases of alleged harassment involve issues of speech and expression, the First Amendment must be considered. Individuals have a right to freedom of speech that applies in the classroom and in educational programs and activities. In order to establish a violation of campus rules that may fall within the scope of Title IX, the harassment must rise to a level that it limits or denies his or her ability to participate in or benefit from the education program. Title IX is not intended to regulate the content of speech.

The University employs trained staff members who have responsibility for Title IX compliance which includes investigating allegations of sex discrimination and retaliation. To file a complaint or raise a question about Title IX, please contact one of the Title IX officers listed below. The Title IX Coordinator oversees the development, implementation, and evaluation of Title IX policies, procedures, and training efforts and will refer all complaints to the appropriate Investigator.

The Title IX Coordinator for the University of Colorado Denver is:

Dr. Raul Cardenas, Associate Vice Chancellor of Student Affairs

Phone number: 303-315-2110 Email address: Raul.cardenas@ucdenver.edu

Office address: Lawrence Street Center, 14th Floor Denver, CO 80202; Mailing address: Campus box 146

The Title IX Coordinator for the Anschutz Medical Campus is:

Dr. Regina Kilkenny, Associate Vice Chancellor, Office of Academic Resources & Services

Phone number: 303-724-8070 Email address: Regina.kilkenny@ucdenver.edu

Office address: Education II North, Room 5101; Mailing address: Campus Box A095

All student complaints will be referred to or can be filed with

Tara Buckley, Title IX Investigator & Trainer

Tivoli 127, Room F

Phone number: 303-352-3578 Email address: Tara.buckley@ucdenver.edu

All non-student related complaints can be filed with

Human Resources

Phone number: 303-315-2700

Email address: Human.resources@ucdenver.edu

In addition to publishing grievance procedures, the University has implemented policies and procedures prohibiting sexual harassment and sexual misconduct.

Sexual Harassment

- For further information, please review the University's Sexual Harassment Policy and Procedures document: <https://www.cu.edu/policies/aps/hr/5014.pdf>

Sexual Misconduct

- For Denver Campus Students: Prohibited student conduct and the student conduct process are explained in the Student Code of Conduct:
<http://www.ucdenver.edu/life/services/standards/students/Documents/CU%20Denver%20Code%20of%20Conduct%202012-2013.pdf>

If you believe you have experienced a form of sex discrimination, sexual harassment, sexual violence, and/or retaliation, it is important to tell someone so you can get to the appropriate resources. Confidential on-campus resources are: 1) The Phoenix Center at Auraria: 303-556-6011 and 303-556-CALL (2255) for 24 hour support, 2) CU Denver Counseling Clinic: 303-556-4372, and 3) Ombuds office: 303-556-4493.

Discussing an allegation of sex discrimination and retaliation with any other official at the University may trigger that official's responsibility to report to the University as it is defined in the University's Sexual Harassment Policy and Procedures. Since employees have a duty to report, your confidentiality may not be guaranteed. However, it is important for the University to become aware of such allegations so that it may take appropriate steps as necessary.

You may file a Title IX complaint directly with one of the Title IX officers at the University. If you decide to file a Title IX complaint including allegations about misconduct, you would be considered the Complainant. The Respondent is the person against whom the allegations have been made.

If the alleged incident has occurred on-campus, you may also contact the Auraria Police Department at 303-556-5000. If the alleged incident has occurred off-campus, you may also contact the Denver Police Department at 720-913-2000. University officials, including the confidential resources listed above can provide you assistance and support to report to Title IX officers and law enforcement. If you report to law enforcement first, you will need to give consent for them to refer cases to the Title IX officers at the University. A Complainant can file complaints with the University and law enforcement at the same time, however, the timeliness of the investigation may be different. Additionally, students may file a complaint with the Office of Civil Rights of the U.S. Department of Education (<http://www.hhs.gov/ocr/civilrights/complaints/index.html>).

The University of Colorado Denver has the ability to address allegations of sex discrimination, sexual harassment, sexual violence, and retaliation in a noncriminal context. The CU Denver process is separate from law enforcement or the judicial system. If a University official has enough reason to believe a crime has been committed, he or she may be obligated to report the allegation to the police, if they have not yet been contacted.

The identity of the Respondent determines who the primary Investigator will be for the complaint. If the Respondent is a CU Denver student, the Title IX Investigator for Students will investigate the complaint and determine if a violation to the University's Sexual Harassment policy has occurred. Also, the Office of Community Standards and Wellness will review the facts

outlined in the investigation report to determine if a violation to the Student Code of Conduct has occurred. Student safety is the primary concern, therefore any alcohol or drug violations by the Complainant will be handled informally and usage does not make the Complainant at fault for sexual violence. A conduct officer will review the factual information provided in the written report and determine a finding based a “preponderance of the evidence” standard. A preponderance of evidence means what happened is more likely than not, or “50% plus a feather.” The Office of Community Standards and Wellness will use its standard procedures for review and may impose sanctions, when appropriate. Please refer to the applicable Student Code of Conduct for more information.

When the complaint involves two or more University of Colorado campuses or other institutions on the Auraria Campus, the complaint will be handled by the campus with disciplinary authority over the Respondent. The campus responsible for the investigation may request the involvement or cooperation of any other affected campus and should advise appropriate officials of the affected campus of the progress and results of the investigation.

If the Respondent is an employee, Human Resources will be involved in the investigation process and one of their Investigators will work with the Title IX Investigator for Students and the Office of Community Standards and Wellness to investigate the complaint. If you are uncertain whether the Respondent is a student or an employee, you can make a report to either of the Title IX officers. If the Respondent is not a student or employee, CU Denver can help you connect with appropriate on-campus and off-campus resources.

Once they have notice of alleged sexual discrimination of students, the Title IX Investigator and other qualified University Officials will determine if initial remedial actions need to be taken in order to attempt to alleviate issues regarding Complainant’s personal safety. Initial remedial actions will differ for each complaint and be tailored to address the unique needs of the parties involved. The Title IX Investigator will review the initial facts and make a determination that is consistent with the best interests of all the parties involved. The Title IX Investigator and other qualified University Officials will also assess their duty to warn others on and/or off the campus if appropriate under the circumstance of the allegation. They also may initiate an interim suspension of the Respondent based upon the severity of the initial evidence regarding the alleged complaint.

The Title IX officers and other appropriate University employees will review the alleged complaint and determine if there is enough initial evidence to move forward with an investigation under the University’s Sexual Harassment Policy and Procedures. If an Investigator feels an investigation is warranted then one will begin as soon as possible.

When the decision has been made to conduct an investigation, the University will determine the appropriate timeline and plan of action to address the alleged complaint. Some complaints of sexual harassment may be resolved through the use of informal mechanisms. The Complainant can decide at any point to move from an informal process into a formal investigation process. If the alleged complaint results in a formal investigation, the University may have one of their trained Investigators, may use more than one Investigator, and may invite trained professionals

from outside of the University to investigate an alleged complaint. In some cases, such as complaints of alleged sexual assaults, mediation will not be appropriate, even on a voluntary basis.

When the complaint results in a formal investigation, the Complainant and Respondent will receive a written notice of investigation. The notice will provide a description of the alleged conduct and the alleged violations to the University's Sexual Harassment Policy and Procedures policy. Both parties will be requested to attend at least one meeting with a Title IX Investigator. The Title IX Coordinator and the Chancellor are also notified of the investigation.

A Complainant may decide to withdraw his or her complaint. Choosing not to participate in the investigation process may significantly limit the University's ability to respond to the alleged complaint. Based upon the initial information provided, the University may need to proceed forward with the investigation in order to keep the campus safe. A Complainant can decide to initiate the complaint again at a future time.

Barring extenuating circumstances, the University will make every effort to conduct an investigation and resolve the alleged complaint within 60 calendar days, upon receipt of the notice. The Complainant and Respondent will be contacted about changes made to proposed timelines.

The Complainant and the Respondent may have a person (parent, advocate, lawyer, adviser, etc.) present during any meeting to provide support. The support person may not speak on behalf of the Complainant or Respondent. The Complainant and Respondent may provide evidence and the names of witnesses that are relevant to the complaint. The Title IX Investigator will keep written and audio recordings of the meetings. The Complainant and Respondent are not required to question each other or meet face to face at any time throughout the investigation process. If the either student chooses to not attend a meeting on the date specified in the notice, or if either student chooses to attend but does not participate, the Title IX Investigator may complete the investigation based on the information obtained.

When the investigation is complete, the Title IX Investigator shall prepare a written report that shall include a statement of factual findings based upon the information and evidence provided by the Complainant, Respondent, and any witnesses involved. The University will maintain a case file of the final written report and all other relevant documentation, such as evidence, transcriptions, and audio-recordings.

The Title IX Investigator will send the written report to a standing review committee, trained in reviewing reports that result in Title IX investigations. This review is limited; the standing review committee may consult with the Title IX Investigator, the Title IX Coordinator, or other relevant University officials, may request further investigation needs to be done, and/or may request a different Investigator conduct the investigation again. The standing review committee may adopt the Investigator's report as its own or may prepare a separate report based upon the findings of the investigation. The standing review committee may not conduct an investigation or hearing.

Once the standing review committee approves the final written report, they will send it back to the Title IX Investigator. The Title IX Investigator will send a copy of the report to the Title IX Coordinator and forward the report to The Office of Community Standards and Wellness to initiate the conduct process if necessary. The student conduct process is outlined in greater detail in the Student Code of Conduct:

<http://www.ucdenver.edu/life/services/standards/students/Documents/CU%20Denver%20Code%20of%20Conduct%202012-2013.pdf>

Both parties will be notified concurrently, in writing, about the outcome of the investigation.

The Complainant and Respondent may file an appeal based upon three criteria: 1) procedural error, 2) new evidence, and 3) sanction. The Complainant and Respondent may file an appeal with the Title IX Investigator, who will forward the appeal to the Title IX Coordinator. The Title IX Coordinator will oversee appeals when there is an alleged error in the process and when there is new evidence, unavailable at the time of the investigation, to review. Once the Title IX Coordinator has reached a decision, the Complainant and Respondent will be notified of the final outcome. The Office of Community Standards and Wellness will oversee an appeal of sanctions and their appeal process is outlined in the Student Code of Conduct.

On-Campus Resources:

The Phoenix Center at Auraria:

Tivoli 227

pcauraria@gmail.com

303-556-6011

24/7 Helpline: 303-556-CALL (2255)

Community Standards and Wellness

900 Auraria Way, Tivoli 227

303-556-2444

Auraria Police

Administrative Building, Suite 110

303-556-5000

Ombuds Office

CU Denver Building 1250 14th St. Room 110P Denver, CO 80202

303-556-4493

CU Denver Counseling Clinic

North Classroom #4036 1200 Larimer Street Denver, CO 80217-3364 303-556-3159

Dean of Students

Tivoli 127

303-556-3519

Off-Campus Resources:

Office of Civil Rights: <http://www.hhs.gov/ocr/civilrights/complaints/index.html>
Office of Civil Rights, Denver: Voice Phone (303)844-2024, FAX (303)844-2025, TDD (303)844-3439
Denver Police Non-Emergency: 720-913-2000
Denver Police Victim Assistance Unit: 720-913-6035

Who to Call When You Need Help

ADA Coordinator

Contact: ADA Coordinator
Office: Lawrence Street Center, 1050
Telephone: 303-315-2724

Contact the ADA coordinator to report disability discrimination.

Auraria Police Department

Office: Administration Building, 110 (1201 5th Street)
Telephone: 303-556-5000
Emergency: 911

Contact the Auraria Police Department to report on-campus criminal conduct, including sexual assault or other serious allegations of sexual harassment in which the complainant believes that his or her safety is threatened. Allegations of serious sexual harassment should be reported to the Auraria Police Department if they occur after hours or on weekends.

Disability Resources and Services

Director: Lisa McGill
Office: Arts Building, 177
Telephone: 303-556-3450
TTY: 303-556-4766

The Office of Disability Resources and Services provides equal opportunities and fosters the personal growth and development of students with disabilities. Contact DRS for priority registration for classes, assistance in identifying volunteer note takers, alternative testing, oral/sign language interpreters, real-time captioning and textbooks in alternative formats.

Campus Assessment, Response, Evaluation Team

Office: Tivoli Student Union, 127
Contact: (303) 352-3579, email shareaconcern@ucdenver.edu or by complete an online form at www.cudenver.edu/csw
Website: <http://www.ucdenver.edu/life/services/BETA/Pages/default.aspx>

The University of Colorado Denver is concerned for the safety and well being of all students. If students are concerned for their own personal safety or for the safety of others, and the situation

is not imminent or life threatening, they can share these concerns with a case manager by calling (303) 352-3579, emailing shareaconcern@ucdenver.edu or by completing an online form at www.cudenver.edu/csw.

Equal Opportunity/Affirmative Action

Contact: Equal Opportunity/Affirmative Action Compliance Officer

Office: Lawrence Street Center, 1050

Telephone: 303-315-2724

Contact the compliance officer to report discrimination on the basis of race, color, national origin, sex, age, disability, creed, religion, sexual orientation or veteran status.

Human Resources

Office: Lawrence Street Center, 1050

Telephone: 303-315-2700

Contact the Office of Human Resources for a referral and to speak to someone immediately about your problem.

Ombuds Office

Associate Director: Mary Chavez Rudolph

Office: CU-Denver Building, 107P

Telephone: 303-556-4493

E-mail: mary.chavezrudolph@ucdenver.edu

Website: www.ucdenver.edu/about/departments/OmbudsOffice/Pages/OmbudsOffice.aspx/

The Ombuds Office is a confidential and impartial resource for students, faculty and staff. Contact the Ombuds Office: as a first step if you don't know where to turn, as a last resort, or anywhere along the way; when you are confused about university policy or procedure and would like clarification; to explore your options, share your concerns, evaluate your situation and plan your next step; when you feel as if you have been treated unfairly; and for information and identification of resources to resolve issues.

Sex Discrimination, Sexual Harrassment, and Sexual Misconduct

To file a complaint or raise a question, please contact one of the Title IX officers listed below.

The Title IX Coordinator for the Denver Campus is:

Raul Cardenas, PhD. Associate Vice Chancellor of Student Affairs

Phone number: 303-315-2110

Email address: Raul.cardenas@ucdenver.edu

Office address: Lawrence Street Center, 14th Floor Denver, CO 80202

Mailing address: Campus Box 146

All student complaints will be referred to or can be filed with

Tara Buckley, Title IX Investigator & Trainer

Office address: Tivoli 127, F

Phone number: 303-352-3578

Email address: Tara.buckley@ucdenver.edu

All non-student complaints will be referred to or can be filed with

Human Resources

Phone number: 303-315-2700

Email address: Human.resources@ucdenver.edu

Student and Community Counseling Center

Contact: Patricia Larsen

Office: North Classroom, 4036 New Location: Tivoli, 454 (effective Spring 2013)

Telephone: 303-556-4372

Website: www.ucdenver.edu/counselingcenter

The Student and Community Counseling Center provides mental health counseling services to the student body as well as the metropolitan community. CU Denver students receive 10 counseling sessions at no cost per fiscal year as part of their student fees.

CU Online

[At A Glance: CU Online](#)

[Frequently Asked Questions](#)

[Computer Requirements](#)

You have a life filled with family and friends. A life filled with work and responsibilities. A life—filled...

Enter the flexibility of online and hybrid courses.

Essentially, online courses allow you to attend CU Denver on your time, at your convenience, while also providing the recognition and respect that only a brick and mortar university can offer. While hybrid courses combine the best of online and on-campus (half of your course is online, and the other half is on-campus).

But it's not just one or two electives or random courses; you can actually complete an entire University of Colorado Denver | Anschutz Medical Campus degree (or 19) from all online and hybrid courses. So, you can enjoy the same stimulating courses, top-notch faculty and dedicated resources by taking all of your courses online, all on-campus, or mixing and matching some online with some on campus. However you prefer, the degree and education are the same.

Under Academic Technology and Extended Learning (ATEL), the CU Online department is responsible for managing the technology and support for faculty and students in online and

hybrid/blended courses, as well as courses which use web-based course management software to supplement traditional on-campus instruction.

How It Works

Online courses run on a traditional semester schedule and, although courses are not self-paced ('asynchronous'), they are flexible. As a student, you're able to log into your courses on a regular basis, at your convenience. You will be assigned a home page to access courses, find lectures and assignments and participate in class discussions and real-time course chat rooms.

Each course is developed to offer everything you would expect from a traditional University of Colorado Denver | Anschutz Medical Campus course – without having to come to campus. So instructors deliver course content and lectures through cutting edge technology, such as streaming audio, video and multimedia slide shows.

Some professors offer weekly assignments to help ensure you are right on track with the materials being taught. Quizzes and tests can be timed to help affirm your mastery of the material. In addition, assignments may be uploaded to the site, which is like creating an attachment in e-mail.

Exams are taken and administered in a variety of ways. They can be administered online by using your course software with an Internet browser, as a take-home exam where you print out a hard copy and hand it in, or proctored by an outside party, an instructor or the teacher's assistant (TA).

As a bonus, if you are registered for only online courses, you are simply responsible for the information technology fee and the student information system fee. **All other traditional fees are waived**, along with the incidental fees associated with commuting to campus, parking, child care, etc. There is also a special tuition discount if you are an out-of-state student enrolled only in online courses.

Programs

CU Online offers courses in liberal arts and sciences, arts and media, business, education, engineering, nursing, public affairs and architecture and planning. Below are the complete degree programs and certificates that can be completed exclusively through online courses:

Degree Programs

- Bachelor of arts in English writing (BA)
- Bachelor of arts in sociology (BA)
- Bachelor of science in nursing, *RN to BS*
- Doctor of education, leadership for educational equity (EdD)
- Doctor of nursing practice (DNP)
- Doctor of philosophy (PhD) in nursing
- Master of arts in early childhood education (MA)
- Master of arts in information and learning technologies (MA), *eLearning design and implementation*

- Master of arts in information and learning technologies (MA), *school library*
- Master of business administration (MBA)
- Master of criminal justice (MCJ)
- Master of engineering (MEng), *geographic information systems*
- Master of public administration (MPA)
- Master of science in global energy management (hybrid program)
- Master of science in information systems (MS)
- Master of science in management and organization (MS), *managing for sustainability*
- *Master of science in nursing leadership and health care systems (MS)*
- Master of science in nursing (MS), *informatics option*
- Master of science in recording arts (MS), *media forensics*

Certificates, Modules and Other Online Programs

- Adolescent literacy certificate
- Applied behavior analysis certificate
- Certificate in palliative care
- Early childhood special education, specialist license
- Early literacy certificate
- Executive leadership in health information technology certificate
- Graduate certificate in the teaching English to speakers of other languages (TESOL) certificate
- Health care informatics certificate
- Health education certificate (hybrid program)
- Health information management & exchange specialist certificate
- Nonprofit management certificate
- Online teaching certificate
- School library endorsement
- Special education generalist endorsement

The semester hours you earn through online courses are **identical to those earned through traditional on-campus courses**. The University of Colorado Denver is a fully accredited institution, making semester hours easily transferable to other universities. And if you graduate solely by taking online courses, the degree is still simply awarded by CU Denver.

Business School

Master of Business Administration (MBA)

The professional MBA program at the CU Denver Business School is outstanding in its ability to integrate leading-edge research with practical business applications in an intellectually challenging environment. Business courses are accredited through the Association to Advance Collegiate Schools of Business International (AACSB).

The professional MBA program emphasizes active learning through case studies, computer simulations, real-world group projects, class discussions and involvement with Colorado

businesses. A master's in business administration degree from CU Denver prepares you with the management and leadership skills required to achieve your personal career goals.

The professional MBA can be individualized and tailored to your specific interests and career goals. Below are the four MBA specializations that you can complete entirely online.

- Enterprise technology management (ETM)
- Finance (FNC)
- Information systems (IFS)
- Managing for sustainability (MNS)

The professional MBA program requires the completion of 48 semester hours, including 30 semester hours of required MBA core courses, 3 semester hours in international business and 15 semester hours of electives, which you'll choose from other graduate business courses.

The following are examples of Business School courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the [ISIS Search For Classes](#) page for up-to-date information about available courses.

- Analysis, Modeling and Design
- Analyzing and Interpreting Accounting Information
- Applied Economics for Managers
- Business Forecasting
- Business Intelligence Systems
- Business Process Management
- Data Analysis for Managers
- Data Base Management Systems
- Emerging Technologies
- Enterprise Knowledge Management
- Entrepreneurial Financial Management
- Financial Decisions and Policies
- Financial Management
- Financial Modeling
- Global Enterprise Systems
- Information Systems Management and Strategies
- Information Systems Security and Privacy
- International Corporate Governance
- Internet Marketing
- Investment Management Analysis
- IT Infrastructure
- IT Project Management
- Legal and Ethical Environment of Business
- Macroeconomics and Financial Markets
- Management of Financial Institutions
- Management of Operations
- Managing Individuals and Teams
- Marketing Management

- Object-Oriented Business Programming
- Quantitative Methods for Finance
- Security Analysis and Firm Valuation
- Service Oriented Architecture
- Short-term Financial Management
- Strategic Management
- Web Site Development Practice and Technologies

Program contact: Shelly Townley, Shelly.Townley@ucdenver.edu.

Master of Science in Global Energy Management (Hybrid Program)

The Global Energy Management (GEM) Program at the University of Colorado Denver Business School is the premier hybrid-online master of science degree program exclusively designed to develop future leaders in the energy industry. The GEM Program is unique because students gain a business and leadership education focused solely on the energy industry.

The MS in Global Energy Management consists of eight core courses and four electives. Individual elective options are not available to GEM students because of the cohort structure of the program. Students select their electives during the first term. No courses may be waived, substituted, or transferred into the program.

The following are courses that comprise the GEM program. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- 21st Century Global Energy Issues and Realities
- Advanced Financial Management in the Energy Industry
- Energy Accounting in Global Markets
- Energy Asset and Production Management
- Energy Marketing
- Environmental, Regulatory, Legal & Political Environment in the Energy Industry
- Financial Management and Hedging in the Global Energy Markets
- Global Energy Economics and Geography
- Integrated Information Management for Energy Firms
- Land Management and Energy Contracts
- Leadership and Decision Making in the Global Energy Environment
- Organizational Behavior in the Energy Industry
- People Management in the Global Energy Environment
- Renewable and Alternative Energy: Opportunities and Challenges
- Renewable Energy Management
- Special Topics

Program contact: Shelly Townley, Shelly.Townley@ucdenver.edu.

Master of Science in Information Systems

The information systems (IS) program in the Business School has established CU Denver as a leader and innovator in the field. As part of that innovation, the online master of science (MS)

program has been developed to help keep you one step ahead of your collegiate peers when pursuing your information based field of choice. You can now complete two distinct specializations completely online.

The MSIS program can be individualized and tailored to your specific interests and career goals. Below are the five MSIS specializations that you can complete entirely online.

- The Enterprise Technology Management (ETM)
- Business Intelligence (BI)
- Health Information Technology (HIT)
- Web & Mobile Computing (WMC)
- Geographic Information Systems (GIS) Option

The MSIS program requires the completion of 12 semester hours of MSIS core courses, and 24 credit hours from the above specializations, and two free electives. The following are examples of Business School courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Analysis, Modeling and Design
- Analyzing and Interpreting Accounting Information
- Business Intelligence Systems
- Business Process Management
- Data Analysis for Managers
- Data Base Management Systems
- Emerging Technologies
- Financial Management
- Global Enterprise Systems
- Information Systems Management and Strategies
- Information Systems Security and Privacy
- IT Infrastructure
- IT Project Management
- Legal and Ethical Environment of Business
- Management of Operations
- Managing Individuals and Teams
- Marketing Management
- Strategic Management

Program contact: Shelly Townley, Shelly.Townley@ucdenver.edu.

Master of Science in Management and Organization - Managing for Sustainability

The MS in management focuses on group and organizational effectiveness, organizational design and organizational change. The MS in management and organization program prepares you for upper-level managerial positions in the public and private sectors. Upon completion of this program you will:

- Create effective strategies for success in today's complex and constantly changing business environment
- Effectively design organizations
- Learn how to manage interpersonal dynamics
- Implement planned change and organizational transformations

The coursework for the MS in management degree consists of 10 courses (30 semester hours). The four required courses will provide you with a broad perspective and solid foundation in management.

The following are examples of Business School courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Accounting and Finance for Sustainability
- Business and the Natural Environment
- Designing Effective Organizations
- Managing for Sustainability
- Managing Individuals and Teams
- Managing People for Competitive Advantage
- Organizational Development
- Social Marketing

Program contact: Shelly Townley, Shelly.Townley@ucdenver.edu.

College of Arts and Media

Master of Science in Recording Arts, Media Forensics

Media forensics is a new area in the field of investigation. It focuses on the collection, analysis, interpretation, and presentation of audio, video, and image evidence obtained during the course of investigations and litigious proceedings. As a student in the MS in Recording Arts - Media Forensics (MSRA-MF) degree program, you will be able to hone your deduction skills while being a part of a one-of-a-kind program.

Classes feature diverse faculty from around the world and you'll progress through three areas of study, which fully prepare you for analytical research in forensic science and expert witness testimony:

- Foundational knowledge in media technology
- Core analysis for recorded audio and imagery
- Capstone experiences including testimony in moot court and a graduate research thesis

The coursework for the MS in recording, media forensics degree consists of 13 courses (33 semester hours, which includes 29 credit hours of required courses and 4 credit hours for a thesis project).

The following are examples of College of Arts and Media courses available online from spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Forensic Audio Analysis
- MATLAB for Forensic Audio Analysis
- Forensic Video & Image Analysis
- MATLAB for Forensic Video & Image Analysis
- Report Writing and Court Testimony
- Research Thesis in Media Forensics
- Forensic Science and Litigation
- Research Practices in Media Forensics
- Foundations in Media Forensics
- MATLAB Foundations
- Experiential Lab
- Computer Forensics
- Mobile Phone Forensics

Program contact: Dr. Catalin Grigoras: ncmf@ucdenver.edu

College of Engineering and Applied Science

Engineering - Geographic Information Systems

The master of engineering degree—geographic information systems (MEng-GIS) option is directed to engineers and other environmental and urban infrastructure professionals seeking skills in using and managing these rapidly developing spatial data technologies.

The MEng-GIS degree at CU Denver is multidisciplinary involving civil engineering (environmental, geodesy and remote sensing, water resources, geotechnical and transportation), geography and environmental sciences (remote sensing, ecology, air quality, environmental impact assessment), urban and regional planning (spatial analysis, community development), information systems (data structures, database systems and software engineering), applied mathematics (probability and statistics, networks, simulation and optimization) and engineering management strategic planning, project management, policies).

The MEng-GIS degree program consists of 30 graduate semester hours - 9 courses, plus one course of an advanced applications project. The following are examples of GIS courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Advanced Remote Sensing
- Introduction to Geographic Information Systems
- GIS Laboratory (two or more versions may be available)
- GIS Spatial Database Development
- GIS Analyses—Theory and Practice

- GIS Management and Policies
- GIS Relational Database Systems
- Advanced Remote Sensing
- Master's Report

Program contact: MEngGIS@ucdenver.edu.

College of Liberal Arts and Sciences

Bachelor of Arts in English Writing (BA)

The Department of English writing major offers you the knowledge and skills necessary to write well in a number of contexts including nonprofit organizations, industry and academia. This is accomplished through a combination of traditional and new media courses and through the service learning and internship opportunities provided for you. The flexible and interdisciplinary nature of this degree is designed to prepare students wishing to enter graduate school or pursue jobs in education, law, editing, professional writing and other areas.

If you're majoring in writing, you must present a total of 39 hours for the major, of which 27 hours must be earned in upper division courses. The following are examples of English Writing courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Argumentation and Logic
- Business Writing
- Grammar, Rhetoric and Style
- Introduction to Creative Writing
- Language Theory
- Senior Seminar in Writing
- Special Topics in Rhetoric and Writing
- Technical Writing

Program contact: Joanne Addison, Joanne.Addison@ucdenver.edu.

Bachelor of Arts in Sociology (BA)

Sociology is the study of group life: its characteristics, changes, causes and consequences. It combines scientific and humanistic perspectives in the study of urban and rural life, family patterns and relationships, social change, intergroup relationships, social class, environment, technology and communications, health seeking behavior and social movements.

A major in sociology is accomplished by completing a general core of 19 hours, plus a minimum of 15 electives in sociology, for a total of 34 hours with an average grade of C (2.0) in all courses. The following are examples of sociology courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Contemporary Sociological Theory

- History of Sociological Theory
- Introduction to Research Methods
- Introduction to Sociology
- Introduction to Statistics
- Urban Sociology

Program contact: Rachel Watson, Rachel.Watson@ucdenver.edu.

Teaching English to Speakers of Other Languages (TESOL) Certificate

If you're a non-degree-seeking student, this certificate program allows you the opportunity to receive a credentialed certificate in teaching English to speakers of other languages (TESOL). The certificate courses can also be applied to the graduate degree program in applied linguistics without increasing the minimum number of semester hours required to graduate.

This certificate is 12 semester hours and is geared toward either native English speakers who want to teach overseas or international students who want to teach English in their home country or other countries. The following are examples of TESOL courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Cross Cultural Communication
- Language Theory
- Principles and Practices of Second Language Acquisition
- Second Language Writing

Program contact: Ian Ying, hongguang.ying@ucdenver.edu.

College of Nursing (Anschutz Medical Campus)

Bachelor of Science in Nursing - RN to BS

The RN-bachelor of science degree program, based on the Colorado Nursing Articulation Model, is an educational pathway available for registered nurses who desire career mobility and professional development. The program is accessible, flexible, relevant, and allows the student to focus on an individual area of interest.

Visit the [Course Book page](#) for up-to-date information about available courses.

Contact: nursing.admissions@ucdenver.edu.

Certificate in Palliative Care

Palliative care refers to the comprehensive management of the physical, psychological, social, spiritual, and existential needs of patients with progressive illness and their families. This program integrates palliative care principles into the practice of health care professionals for those working in acute and long-term care in both rural and urban settings in Colorado and beyond, and to provide theory review for the HPNA Palliative Care Nursing Credentialing

Examination.

Visit the [Course Book page](#) for up-to-date information about available courses.

Contact: professional.development@ucdenver.edu.

Doctor of Nursing Practice (DNP)

As a DNP graduate, you will be prepared to be a clinical practice-oriented leader who focuses on evidence-based practice and on research utilization for the improvement of clinical care delivery, patient outcomes and system management.

In fall 2005, the University of Colorado College of Nursing became the first school in the Rocky Mountain region to initiate the doctor of nursing practice (DNP) degree. The University of Colorado's DNP program has approval from the Board of Regents and the Colorado Commission on Higher Education (CCHE).

Visit the [Course Book page](#) for up-to-date information about available courses.

Contact: nursing.admissions@ucdenver.edu.

Doctor of Philosophy (PhD) in Nursing

As a nurse scholar, this PhD research program prepares you to advance the art, science and practice of the discipline. PhD preparation in nursing promotes knowledge development for reflective, theory-based and research-guided nursing practice. The PhD program equips you to conduct knowledge development and scholarly inquiry and to be actively engaged in many roles including:

- Administrator
- Clinician-scholar
- Educator
- Health care policy analyst
- Researcher

Visit the [Course Book page](#) for up-to-date information about available courses.

Contact: nursing.admissions@ucdenver.edu.

Executive Leadership in Health Information Technology Certificate

The certificate program for executive leadership in health information technology is targeted to those health care and public health professionals with managerial experience that will lead the deployment and use of health IT to achieve transformational improvements in quality, safety and outcomes. The executive leadership curriculum consists of five three-credit courses, for a total of 15 credit hours. Visit the [Course Book page](#) for up-to-date information about available courses.

Contact: professional.development@ucdenver.edu.

Health Care Informatics Certificate

As a health care professional, this health care informatics program provides an opportunity for health care professionals to acquire knowledge and skills in the rapidly progressing field of informatics. With recent movements toward the adoption of the electronic health record and the need for IT infrastructure to increase patient safety and facilitate evidence-based practice, there is a growing need for more informatics specialists. This certificate provides opportunities for those new to the field and those who may be practicing in the field and need a professional update. The certificate is a 9 semester hour program. Visit the [Course Book page](#) for up-to-date information about available courses.

Contact: professional.development@ucdenver.edu.

Health Information Management & Exchange Specialist Certificate

The certificate program for health information management and exchange specialists will prepare health care professionals to support the collection, management, retrieval, exchange and/or analysis of information in electronic form, in health care and public health organizations. The HIM/HIE specialist curriculum consists of five three-credit courses, for a total of 15 credit hours. Visit the [Course Book page](#) for up-to-date information about available courses.

Contact: professional.development@ucdenver.edu.

Master of Science (MS) in Nursing - Informatics Option

The College of Nursing's master of science program in nursing is designed to prepare you for advanced nurse practice roles. You're taught to formulate clinical, administrative or policy decisions to promote health with clients experiencing wellness, acute or chronic illness, and to develop, manage, and evaluate the care within communities and health care systems.

The program is structured to provide a foundation for career paths for future leaders in advanced nursing practice and to prepare lifelong learners who demonstrate knowledge, skill, critical thinking and flexibility. The master of science program also provides the foundation for doctoral study in nursing.

Visit the [Course Book page](#) for up-to-date information about available courses.

Contact: nursing.admissions@ucdenver.edu.

Master of Science (MS) in Nursing Leadership and Healthcare Systems (iLEAD)

The master's in nursing leadership and administration program, referred to as i-LEAD (innovation in leadership and administration in nursing and health care systems) offered by the

College of Nursing will prepare advanced practice nurses with the expertise to provide leadership for high quality health care in rural and medically underserved urban areas. Visit the [Course Book page](#) for up-to-date information about available courses.

Contact: nursing.admissions@ucdenver.edu.

School of Education & Human Development

Adolescent Literacy Certificate

This adolescent literacy certificate is designed to help you reach your students (of varying learning styles and backgrounds), while providing you with valuable credentials that can be applied towards a master's degree in curriculum and instruction as well as the Colorado Reading Teacher Endorsement.

This fully online certificate is a series of three graduate level courses specifically geared to the development of middle and high school readers and writers – especially those who are struggling.

The following are examples of adolescent literacy courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Adolescent Literacy Part I
- Linking Assessment and Instruction in Language and Literacy I
- Adolescent Literacy Part II

Program contact: Continuing and Professional Education: cpe@ucdenver.edu.

Applied Behavior Analysis Certificate

Applied Behavior Analysis (ABA) courses focus on behavioral needs of widely varying individuals. Specifically:

- Building the skills and achievements of children in school settings
- Enhancing the development & abilities of people with varying disabilities
- Augmenting the performance and satisfaction of employees

The BCBA® and BCaBA® courses are five, 3-credit course sequence taught fully online by UCD BCBA® instructors. BCBA® students will complete a total of 225 required class hours distributed among the BACB®'s 3rd Edition Task List areas. BCaBA® students will complete 135 required class hours over a four, 3-credit course sequence.

- Intro to ABA and Terminology
- ABA Practical Applications
- ABA Data

- ABA Advanced Data and Behavior Plans/Applications
- Autism and Early Intervention

Program contact: education@ucdenver.edu.

Doctor of Education, Leadership for Educational Equity

CU Denver's rigorous doctor of education, leadership for educational Equity (EdD) cohort program has been created to:

- Strengthen your knowledge as an educational leader
- Position you to work successfully in a variety of educational contexts including P-20 schools, community colleges, public/private universities and educational nonprofits.
- Prepare professionals with 5+ years of experience and leadership responsibilities to research, problem solve and take action on critical challenges.

This program reflects a cohort model. Students applying to the program must be prepared to join and follow their cohort in taking the prescribed coursework and experiences for three consecutive years. The courses are taught by experienced, nationally recognized professors who will prepare you for the next step in your education career.

Your course work will encompass 69 credit hours. This will include three courses in equity and diversity, four courses in leadership and learning, three courses in research methods, and three courses in your concentration area. Culminating experiences will include a six-credit internship and 24 credits in dissertation courses and independent study. It is imperative to understand the cohort nature of this program.

Successful applicants will form a cohort and move through the 3-year program plan of study as a group. Once accepted in a cohort group, students must remain in that group. If for any reason a student must drop out of her or his cohort, we will attempt to integrate that individual into a subsequent cohort group but cannot guarantee a spot.

Program contact: education@ucdenver.edu.

Early Childhood Special Education, Specialist License

As a graduate earning the early childhood special education specialist license you'll have the theoretical background and skills in assessment, teaching and collaboration necessary to work with young children with disabilities. As a graduate with this license you can assume professional roles like lead teacher, early interventionist, service coordinator, Child Find team member, special education consultant and behavior specialist.

The ECSE specialist course sequence consists of 40 semester hours. A total 800 hours of fieldwork/practica is required for the license. Approximately 290 hours of fieldwork are associated with course assignments; 510 hours of intense, culminating practica occur toward the end of the second year of study. The following are examples of ECSE courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Administrative Seminar
- Advanced Child Growth and Development
- Approaches to Young Children's Learning
- Basic Statistics
- Curriculum and Program Development in ECE
- Early Childhood Profession
- Early Intervention Strategies
- Infant/Toddler Practicum (170 clock hours—online option not possible)
- Language and Literacy in Young Children
- Literacy and Mathematics K–12
- Measurement and Evaluation in ECE
- Medical/Physiological Aspects of Developmental Disabilities
- Preschool Practicum (170 clock hours—online option not possible)
- Primary Practicum (170 clock hours—online option not possible)
- Screening and Assessment in Young Children
- Seminar: Research and Current Issues in ECE
- Social and Cognitive Development and Disorders
- Working with Parents and Families

Program contact: education@ucdenver.edu.

Early Literacy Certificate

This certificate program allows you to take courses in the specialty area of early literacy and apply these courses directly toward the full master's degree. The MA programs (K–6 and 7–12) in the School of Education & Human Development provide you with a means for completing a master's degree in curriculum and instruction with an emphasis in reading/writing while simultaneously fulfilling the requirements toward a Colorado reading teacher endorsement. In light of federal NCLB and state CBLA initiatives, this supplementary certificate offers primary grade teachers, preschool teachers and para-educators greater background in the development, assessment and instruction of literacy for young children.

The certificate program allows teachers to take 9 semester hours in the specialty area of early literacy and apply them directly toward the full master's degree. The following are examples of early literacy courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Early Literacy Instruction
- Early Literacy Routines and Assessment
- Literacy Development PreK–3rd Grade

Program contact: Continuing and Professional Education: cpe@ucdenver.edu.

Health Education Certificate (Hybrid Program)

This hybrid certificate will provide you with skills grounded in foundational research and theories in health education. Core components of the certificate courses will focus on:

- Comprehensive Health Education
- Coordinated School Health
- National Health Education Standards
- Characteristics of effective health education curricula

This nine credit graduate level certificate will assist educators in identifying, designing, and implementing effective school-based health education.

The following are examples of Health Education courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Foundations of School Health Education
- Curriculum and Materials in Health Education
- Health Education Teaching Practices

Program contact: Continuing and Professional Education: cpe@ucdenver.edu.

Master of Arts in Early Childhood Education

The mission of the early childhood education online program is to provide substantive support if you're preparing to become a leader in professional practice as an early childhood accomplished teacher, with the master's degree in ECE. This degree prepares you to work in settings which include public schools, child care programs, private preschools and kindergartens, early intervention programs including Head Start and Early Head Start, family support and home-based programs.

The ECE program is composed of 40 semester hours. A total of 425 hours of fieldwork/practica is required. The following are examples of ECE courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Administrative Seminar
- Advanced Child Growth and Development
- Approaches to Young Children's Learning
- Basic Statistics
- Curriculum and Program Development in ECE
- Early Childhood Profession
- Early Intervention Strategies
- Language and Literacy in Young Children
- Literacy and Mathematics K-2
- Measurement and Evaluation in ECE
- Medical/Physiological Aspects of Dev. Disabilities
- Screening and Assessment in Young Children
- Seminar: Research and Current Issues in ECE
- Social and Cognitive Development and Disorders
- Working with Parents and Families

Program contact: education@ucdenver.edu.

Master of Arts in Information and Learning Technologies - eLearning Design and Implementation

The eLearning design and implementation (eDI) program offers an ILT MA degree that is specifically designed to meet your needs as a practicing professional educator as you confront the increasingly important role electronic and online technologies play within post-secondary, K–12 and corporate education. The eDI MA program is for K–12 teachers, higher education instructors, trainers, content experts and corporate instructional developers.

The eLearning program is composed of 36 semester hours. The following are examples of eLearning courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Developing Educational Web Sites
- Instructional Message Design
- Learning Processes in Instructional Technology
- Managing Instructional Development
- Media for Web-based Learning Environments
- Policies and Planning for eLearning Programs
- Research in Information and Learning Technologies
- Strategies for Online Learning

Program contact: education@ucdenver.edu.

Master of Arts in Information and Learning Technologies – School Library

This MA prepares you with the knowledge-management skills and information access points for school library resources. Courses will integrate information and learning technology strategies, along with courses on school library management, instructional design and instructional leadership.

All topics covered will be close to your heart as a school librarian as you collaborate with teachers on instructional units and create user-friendly school library programs that support the love for reading and information literacy. Finally, for this nationally recognized NCATE-AASL-approved school library media education program, you will complete field experience in both elementary and secondary schools for the K–12 school library endorsement.

The program is comprised of 36 semester hours and can be completed in 14 months on an intensive track (summer term to the next summer term) or a standard two-year schedule taking one course each semester. The following are examples of school library courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Adolescent Literature
- Children's Literature Through the Ages
- Collection Development

- Field Experience-Elementary
- Field Experience-Secondary
- Foundations of School Librarianship
- Information Literacy and Reference
- Information Storage and Utilization
- Instructional Development and Production
- Leadership and Practice in ILT
- Management in ILT
- Research in Information and Learning Technology

Program contact: education@ucdenver.edu.

Online Teaching Certificate

The Online Teaching certificate program is designed for K-12, college and university educators interested in creating and teaching online and blended courses, or using Web-based/Web 2.0 components to enhance face-to-face instruction. In accordance with professional standards for quality online courses (iNACOL and IBSTPI), you will complete coursework that addresses the following areas related to online teaching and learning:

- Roles of instructors and students
- Communication
- Facilitation strategies for online discussions (both asynchronous and synchronous)
- Collaborative nature of online courses
- Available technologies for delivering online courses
- Methods of assessment
- Learning outcomes
- Learning activities
- Evaluation

Each course stands alone and all credits may be applied toward a CU Denver master's degree in Information and Learning Technologies.

- Facilitating and Fostering Online Learning
- Integrating Media in eLearning Environments
- Designing and Organizing an Online Course

Program contact: education@ucdenver.edu.

School Library Endorsement

Your courses will integrate Information and Learning Technology strategies through coursework in school library management, collection development, collaborative planning, instructional design, and instructional leadership. As a nationally recognized NCATE - AASL* approved school library education program, students complete field experience in both elementary and secondary schools for the K-12 school library endorsement.

You'll complete 11 graduate-level classes online for a total of 29 credit hours. You may mix and match on campus and online courses, or you may complete the endorsement totally online. The following are examples of school Library Endorsement courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Adolescent Literature
- Children's Literature through the Ages
- Collection Development
- Field Experience-Elementary
- Field Experience-Secondary
- Foundations of School Librarianship
- Information Literacy and Reference
- Information Storage and Utilization
- Managing School Libraries
- Research for Teachers

Program contact: education@ucdenver.edu.

Special Education Generalist K-12 Endorsement

This program is designed for teachers already licensed in elementary or secondary general education. Specifically, this program is geared toward teachers without the formal credentials required to serve students with disabilities, as well as teachers who want to improve their ability to meet the needs of all learners.

A 10-course (26 semester hours) sequence represents the program plan of study. The following are examples of SPED courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Advanced Assessment in Special Education
- Collaboration and Consultation
- Instructional Strategies for Students with Special Needs
- Literacy Intervention for Students with Special Needs
- Positive Behavior Supports
- Special Education for the School Professional
- Special Education Generalist Internship and Site (Online option not possible)
- Special Education Generalist Internship and Site Seminar (Online option not possible)
- The Use of Technology in Special Education
- Transition/Secondary Planning

Program contacts: Meredith Lopez, Meredith.Lopez@ucdenver.edu.

School of Public Affairs

Master of Criminal Justice

The master's degree in criminal justice helps you develop your critical thinking skills and provides an interdisciplinary perspective on crime and the criminal justice system. Specifically, the program focuses on law enforcement, correctional systems, juvenile justice and the formulation of laws and codes. Besides the classic criminal justice curriculum, you will learn about the most pressing current issues through special interest seminars. Past topics have included gang behavior, white-collar crime and hate crimes. Research projects provide another channel for you to become familiar with the issues.

You must complete 36 graduate semester hours, which include a core sequence of four core courses providing a firm foundation in theory, practice and research methods associated with U.S. criminal law and justice. A wide variety of electives gives you the chance to develop special expertise in your unique area of interest (e.g., corrections, mental illness and crime, federal law enforcement, victim assistance and criminal justice administration).

If you do not have previous criminal justice experience, you will be required to complete an internship with a local, state or federal criminal justice or juvenile justice agency. The Internship/Field Study will count as 3 of the 21 elective semester hours. The program culminates with either a traditional 3-6-semester-hour thesis, or a 3-semester-hour field-based final capstone project. The following are examples of MCJ courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Law and Social Control
- Administration of Criminal Justice
- Nature and Causes of Crime
- Research Methods in Criminal Justice
- Advanced Seminar/Capstone

Program contact: Brendan Hardy, Brendan.Hardy@ucdenver.edu

Public Administration (MPA)

This master of public administration (MPA) degree will help you manage government and nonprofit organizations as well as nourish the related skills needed to thrive in this growing field. The curriculum is built upon core courses that develop essential problem-solving and decision-making skills. The required curriculum will help hone skills in management and analysis, but you may gain specific insights into an area of interest by pursuing one of three concentrations available. Each is designed to equip you with the management and analysis skills demanded of managers in challenging public affairs positions.

You must complete a minimum of 36 semester hours of graduate course work, excluding preparatory workshops, with a grade point average of 3.0 or better. The following are examples of MPA courses available online from spring 2008 through spring 2012 along with proposed

courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

- Advanced Seminar in Public Policy and Management
- Economics and Public Finance
- Introduction to Public Administration and Public Service
- Leadership and Professional Ethics
- Organizational Management and Change
- Research and Analytic Methods
- The Policy Process and Democracy

Program contact: Brendan Hardy, Brendan.Hardy@ucdenver.edu

Nonprofit Management Certificate

The nonprofit management certificate prepares you to become an innovative and critical thinker in the areas of nonprofit organizational management and public policy. The nonprofit certificate's unique design bridges theoretical knowledge with real-world experience. As you prepare to start your career (or advance in your current position), you'll gain insight into the interdependence between the nonprofit, public and for-profit sectors.

You must complete 15 semester hours from courses offered and approved by the faculty in the nonprofit program. The following are examples of Nonprofit courses available online from spring 2008 through spring 2012 along with proposed courses. Visit the ISIS Search For Classes page for up-to-date information about available courses.

All courses are 3 semester hours.

- Collaboration Across Sectors
- Nonprofit Boards and Executive Leadership
- Nonprofit Financial Management
- Nonprofits and Public Policy
- Seminar in Nonprofit Management
- Social Entrepreneurship
- Strategic Management for Nonprofit and Public Managers
- Understanding and Achieving Funding Diversity

Program contact: Brendan Hardy, Brendan.Hardy@ucdenver.edu

Hybrid Courses

A hybrid course is just like it sounds. It is half on-campus and half online. The best of both worlds. So if you're taking online courses and enjoy the scheduling flexibility but feel that you're missing out on some of the intangibles of being in a classroom, then the hybrid courses are for you. Hybrid courses meet approximately 50 percent of the normal classroom hours on campus, and the remainder of the course work is completed online.

Supplemental Courses

An online technology supplemented campus course uses technology delivered instruction and materials (e.g. web, CD ROM, etc.) to supplement classroom or laboratory instruction. CU Online also supports faculty using web-based courseware to augment their traditional classes. Many faculty use instructional technology to post their syllabi, lecture notes, hold online quizzes and practice exams, and to coordinate web resources and library media. But these materials do not substitute for or reduce the amount of traditional on-campus instructional contact time.

Contact CU Online at 303-315-3700, visit the Web site at www.cuonline.edu or send an e-mail to cuonlinehelp@ucdenver.edu.

Faculty

The professors and faculty of traditional classes are the same ones teaching online courses. Four out of five full-time faculty hold doctoral degrees with many years of teaching experience, and many are actively engaged in their fields outside the classroom. Not only do they have real-world experience, but many of our faculty are consultants, advisors and partners to the leading organizations that frequently hire University of Colorado Denver | Anschutz Medical Campus graduates.

College of Architecture and Planning

Dean

Mark Gelernter

Associate Dean of Academic Affairs

Michael Jenson

CONTACT

303-556-3382

Fax: 303-556-3687

CAP@ucdenver.edu

Mailing Address

Campus Box 126

P.O. Box 173364

Denver, CO 80217-3364

Location

CU Denver Building

1250 14th Street, Suite 330

Denver, CO 80202

Overview

If you're interested in a career in architecture, urban and regional planning, landscape architecture, urban design or historic preservation, you'll want to get acquainted with the College of Architecture and Planning at CU Denver. The College of Architecture and Planning is the only institution in Colorado to offer a full range of degrees in architecture and related disciplines, from undergraduate through professional masters to doctorate. The college offers a new Bachelor of Science in Architecture degree and graduate programs for about 500 students. Programs are accredited by the Landscape Architectural Accreditation Board (LAAB), National Architectural Accrediting Board (NAAB) and Planning Accreditation Board (PAB). Many students intending to enter the design and planning professions complete the college's undergraduate degree as preparation for our graduate-level professional programs. Our graduate programs also are available for those who already hold an undergraduate degree in an unrelated field. Our graduate programs in architecture, landscape architecture, urban and regional planning, urban design and historic preservation, and our graduate certificates in design build and GIS, are taught at CU Denver, in the heart of a vital downtown. We offer a multidisciplinary PhD in design and planning as well. With a diverse faculty committed to excellence in teaching, research, scholarship and creative work, the college provides students with a broad range of learning opportunities.

College Facilities

The college is located at 1250 14th Street in downtown Denver, on the northeastern edge of the Auraria Campus. This favorable location gives easy access both to the extensive campus facilities and to the urban amenities of Denver's lively lower downtown. Most of the major professional design offices in Denver and many planning firms and agencies are within easy reach of the college. These provide opportunities for contact between students and practitioners. College facilities include studio spaces for students, lecture and seminar rooms, design jury spaces, exhibition spaces and faculty offices. The college also provides a portfolio photography studio room, a model and furniture-making woodshop with laser cutters and a 3-D printer, and a computer laboratory whose focus is computer aided design (CAD), computer 2-D and 3-D imaging and analytic tools for planning. The computer lab includes Windows PCs and G4 Macintoshes, small and large format scanners, large format plotters, laser printers and computer data projection devices. All systems are 100base T Ethernet / Internet savvy and accessible 24 hours a day in a secure room. Find more details about college facilities on the [website](#). Also associated with the college is a geographic information system (GIS) computer laboratory, which is open to all CU Denver students.

Computing in the College

The College of Architecture and Planning requires all incoming graduate students to acquire and use their own computers and software applications in their studies. To assist students with procurement of their personal computers, the IT committee formulated performance-based computing specifications. These are listed [online here](#). Please note that CU Denver neither endorses nor requires students to procure a machine from a particular vendor. While desktop configurations are listed, students are urged to procure laptops mainly for reasons of security

and mobility in studios and classrooms. Software application (program) requirements relate to specific course curricula. In general, students widely use products such as Microsoft Office for word processing, e-mail, presentations and spreadsheet applications. Consult with instructors or refer to course syllabi regarding applications for imaging, CAD, GIS, modeling or rendering before buying them. In addition, not all programs are needed during the first semester; certain release versions may be preferable over others. The college intends to provide computer IT orientation sessions at the beginning of each semester.

Undergraduate Program

The College of Architecture and Planning now offers a Bachelor of Science in Architecture degree exclusively on the downtown Denver campus. The city of Denver provides a rich environment to explore a diverse historic and cultural world that includes multiple approaches to solving urban and building problems. The degree is a “pre-professional” degree, which will provide fast track entry into the accredited Master of Architecture degree that is required for licensure in the profession. This degree provides a scientific and liberal education in design theory of the built world and its practice. Our graduates will have significant grounding in the science of building and the practice of architecture in a rapidly evolving profession. Our educational goal is to engender active and creative making of architecture along with critical thinking skills. Our graduates will have employment options in entry level architectural practices or related fields of urban design, historic preservation, design-build, construction, and even urban planning; or the opportunity to enter any accredited graduate program in the country.

Undergraduate Admissions

Telephone: 303-556-2704

Fax: 303-556-4838

Application Deadlines

Deadlines are determined by University of Colorado Denver Office of Admissions. See [Information for Undergraduate Students](#) for further information on admission.

Admission of Freshman Students

Freshman applicants must have completed the college preparatory curriculum in high school, graduated in the top 25 percent of their high school class and achieved a score of at least 26 on the ACT or 1100 on the SAT. See [Information for Undergraduate Students](#) for further information on freshman admission.

Admission of Transfer Students

Applicants who have completed work at other collegiate institutions should review the information for transfer students in [Information for Undergraduate Students](#). In addition to general university transfer policies, the College of Architecture and Planning evaluates course work to determine its appropriateness for the degree bachelor of science (architecture). Students who have completed more than 24 semester hours of transferable course work are evaluated for admission on the basis of their college GPA without regard to their high school performance. Transfer applicants with fewer than 24 transferable hours will be evaluated on the basis of both high school and college work.

For information about specific policies on transfer of credit, consult the undergraduate director.

For admission to the Bachelor of Science in Architecture program, a transfer applicant must have a minimum 2.3 GPA for all work applicable for transfer. Applicants with less than an overall 2.3 GPA may be evaluated on their last 24 academic credits and admitted on a space available basis if the GPA is a 2.3 on the last 24 credits.

Intra-University Transfer

Students who want to transfer to the BS Architecture program from another college or school of the University of Colorado Denver must formally apply to the College. To apply for an intra-university transfer, students must submit an intra-university transfer (IUT) form and transcripts from University of Colorado to the program advisor. Transfer forms are available at the Office of Registrar or the College Undergraduate Advising Office; transcript request forms are available at the Office of the Registrar. The transcript must include the student's most recent semester at the university. Students with previous course work from other institutions are also required to submit a copy of their transfer credit evaluations (advanced standings). Transfer deadlines are August 1 for fall semester, December 1 for spring semester and May 1 for the summer session. In general, the admission standards for intra-university transfer are the same as for transfer from other institutions as listed above.

Scholarships/Financial Aid

For information on scholarships, visit the college's [website](#) or request a list via e-mail at CAP@ucdenver.edu. For information on federal and state financial aid, contact the Office of Financial Aid, University of Colorado Denver, Campus Box 125, P.O. Box 173364, Denver, CO 80217-3364, 303-556-2886 or visit their [website](#).

Academic Policies for Undergraduate Program

Academic Standing

Students must maintain a minimum overall GPA of 2.3 and a 2.6 GPA in all architecture coursework to remain in good standing and to graduate. If a student's overall GPA falls below a 2.3, then he or she will be placed on academic probation beginning the following semester.

Grade Appeals

Any student may appeal the grade he or she receives in a class within 30 days from the issuance of the grade. The student should first discuss the issue and adjustment sought with the relevant course instructor. If the course instructor does not reply within 30 days, the student submits a written appeal to the program director. Within 30 days, the program director shall process the appeal and prepare a written report explaining the reason(s) for the department recommendation. If the grade appeal still remains unresolved at the department level, the student submits a written request to the department chair and then to the associate dean of academic affairs, who will direct the Academic Affairs Committee to review the appeal. If the grade appeal remains unresolved at the college level, the student may appeal to the dean.

Attendance and Timeliness of Work

Students are expected to attend all meetings of classes. Excessive unexcused absences may result in a grade reduction at the discretion of the instructor. Absence from a class will be excused for verified medical reasons, religious obligations or for extreme personal emergencies. The student may be required to furnish evidence.

Students' assignments are to be completed in a timely manner. Any assignment turned in late may have its grade reduced by an amount set at the discretion of the instructor. An assignment may be turned in late without penalty for verified medical reasons, religious obligations or for extreme personal emergencies. Students must have their instructor's written permission to turn an assignment in late. Students with excused late work may turn in the assignment by the end of finals week without penalty. Otherwise, the grade "I" will be assigned at the discretion of the faculty.

Course Sequencing and Advancement

Programs in the college are structured so that certain courses must be taken concurrently, others sequentially. Students will not be allowed to enroll in a course if its co-requisites or prerequisites have not been satisfied.

Undergraduate Advising and Academic Planning

Admissions Advising

Persons not yet admitted to the BS Architecture program can receive advising on course selection, admission requirements and other matters from an undergraduate staff advisor. To make an appointment, call 303-556-3382.

Admitted Students

Upon admission to the college, students execute a degree plan that identifies the courses required to graduate. This plan contains all the information needed to select courses and monitor progress toward completion of requirements for the Bachelor of Science in Architecture. Undergraduate students are expected to assume responsibility for their own advising. This includes scheduling courses each term, meeting prerequisite requirements, being familiar with all the policies and procedures of the college and otherwise managing their own academic careers. Staff advisors are available to answer questions about unusual situations.

Career advising is available from the [Career Center](#), 303-556-2250.

Academic Policies for Suspension and Probation

Students at the University are expected to maintain progress in their degree program, as defined by being in “good academic standing.” Good academic standing requires minimally a cumulative grade point average (GPA) of 2.0 on all University of Colorado course work.

Academic Probation

- Academic probation is a warning to students that they are not progressing toward completion of their degree in a satisfactory manner.
- Students are placed on academic probation when their cumulative CU GPA falls below a 2.0 at the end of any academic term.
- Students are informed in writing (via University-assigned email and postal letter) of their academic probation status.
- Students on Academic Probation will be required to complete the Academic Success Plan during their first semester on Academic Probation.
- Students will be required to schedule an appointment and meet with their academic advisor to discuss the completed Academic Success Plan before they will be allowed to register for the subsequent term.
- Students on Academic Probation will be required to schedule an appointment and meet with their academic advisor every semester that they are on Academic Probation before they will be allowed to register.
- Academic Probation requires that students achieve a minimum 2.3 semester GPA each subsequent term until their cumulative CU GPA is at least a 2.0 to return to good academic standing. Students must achieve a minimum 2.3 cumulative CU GPA to meet graduation requirements.
- Students who fail to earn the 2.3 semester GPA during any semester of Academic Probation will be placed on Restricted Academic Probation.

- Students have five semesters or 30 credits (whichever happens sooner) to raise their cumulative GPA to above a 2.0, or they will be placed on Academic Suspension.
- Once a student has raised his/her cumulative CU GPA to at least a 2.0, s/he will be removed from Academic Probation and notified via University-assigned email that s/he is in Academic Good Standing.

Restricted Academic Probation

- Students who fail to earn the 2.3 semester GPA during any semester of Academic Probation will be placed on Restricted Academic Probation.
- Students are informed in writing (via University-assigned email and postal letter) of Restricted Academic Probation status.
- Students on Restricted Academic Probation will be allowed to enroll for a maximum of 6 credits/2 classes per semester (whichever is more). A course and its attached lab are considered to be one course in this case.
- Students on Restricted Academic Probation will be required to schedule an appointment and meet with their academic advisor in order to register for courses.
- Students on Restricted Academic Probation will not be able to register online; they will need to register for courses using a Schedule Adjustment Form, which must be submitted to the Service Center (North Classroom #1003) for processing.
- Restricted Academic Probation requires that students achieve a minimum 2.3 semester GPA each subsequent term until their cumulative CU GPA is at least a 2.0. Students must achieve a minimum 2.0 cumulative CU GPA to return to good academic standing and a minimum 2.3 cumulative CU GPA to meet graduation requirements.
- Students on Restricted Academic Probation who do not meet the 2.3 minimum semester GPA will be placed on Academic Suspension.
- Students who fail to raise their cumulative GPA to 2.0 or above in five semesters or 30 credit hours on Academic Probation and Restricted Academic Probation will be placed on Academic Suspension.

Academic Suspension

- Students on Restricted Academic Probation who do not meet the 2.3 minimum semester GPA will be placed on Academic Suspension.
- Students are informed in writing via certified/registered letter of their Academic Suspension status.
- The minimum duration of Academic Suspension is for a period of one year (three semesters, including summer term). Students placed on Academic Suspension will be unable to take courses from any CU campus during this time.
- Should a student be placed on Academic Suspension while registered for the next semester, s/he will be administratively dropped from their courses by the University.
- A student's Academic Suspension status is permanently indicated on his/her official University of Colorado transcript.
- During the one-year Academic Suspension period, students who wish to return to the University should consider one (or both) of the following actions:
 - Attend another regionally-accredited college/university.

- Students who choose to attend another institution while on Academic Suspension can take as many or as few credits as they choose, but must earn a 2.75 cumulative GPA in all transferable course work.
 - Students should consult their academic advisor to discuss appropriate course work.
- Use the time off to directly address and resolve the factors that contributed to the academic difficulty.
- After the one-year suspension period has elapsed, students must petition the appellate committee (of the school or college they wish to enter) for readmission and meet and document at least one of the following criteria:
 - Attendance at another regionally accredited college/university where they earned a minimum cumulative GPA of 2.75 in transferable credit.
 - Explanation of their previous academic difficulty, demonstration of what has changed, and how this will allow them to now achieve and maintain Good Academic Standing (including a semester GPA of at least 2.3 and a cumulative GPA of at least a 2.0).
- Students who choose to petition their college's appellate committee for readmission must submit their petitions by the following deadlines:
 - For fall admission: June 1
 - For spring admission: December 1
 - For Maymester/summer admission: April 1
- If a student is granted readmission and his/her CU GPA is below a 2.0, s/he will be readmitted on Restricted Academic Probation. These students must meet the condition of Restricted Academic Probation every semester until their cumulative CU GPA is at least a 2.0.

Second Suspension

- Students who are readmitted after their first Academic Suspension and fail to meet the conditions of Restricted Academic Probation for a second time are placed on a second suspension for an indefinite period of time.
- Students on a second suspension may be readmitted to the University only by petition to the college's appellate committee.
- Students will not be considered for readmission unless they have demonstrated significant improvement in academic performance at the college/university level, and/or considerable and positive change in personal circumstances.

Students earning all failing grades for a semester will have a dean's stop placed on their record and will not be permitted to register without the undergraduate advisor's approval.

Minimum Acceptable GPA

- Overall CU cumulative GPA Required for College of Architecture and Planning: 2.3
- Architecture Coursework: 2.6

- Overall CU cumulative GPA required by the University: 2.0

Graduate Programs

Learning Experiences

Learning experiences address real issues facing designers and planners as they create healthier, more sustainable, more meaningful environments. In recent years students have built award-winning, solar-powered homes; written new codes to encourage livelier, safer cities; discovered ecological design principles in Colorado ranches; proposed ways for neighborhoods to recover from natural disasters; designed learning landscapes for elementary school playgrounds; and designed and built environmentally sustainable homes in the Navajo Nation. Our award-winning Design-Build Certificate Program takes students to Utah, Guatemala and on local non-profit projects. Students have extensive opportunities for civic engagement, including through paid internships at the college's Colorado Center for Community Development (CCCD) and Center of Preservation Research (CoPR).

Special Activities Programs

The college provides a diverse range of opportunities that enrich and enhance the education of its students. Through activities and functions—including a lecture series, design juries, exhibits, publications and active student organizations—the college encourages contact among students, faculty and members of the design professions. The college is a leader in providing international study opportunities, with a dual Master of Landscape Architecture degree with Tongji University in Shanghai; an internship program sponsored by Gensler Associates to exchange our students and students from Tongji University who study at the host institution and work in the host city's Gensler office; an international urban design studio held each summer in China's Shanghai-Nanjing corridor; and collaborative design studios with Dar Al-Hekma College in Saudi Arabia. Each summer, the college offers foreign study travel programs, which in recent years have traveled to Rome, Helsinki, Paris, Beijing and Madrid. In addition, for the past several summers the college has offered an integrated urban design studio in Turkey. The college makes available a range of scholarships and fellowships, some of which are based on need, others on performance and still others that are specifically intended to provide enrichment opportunities. The college supports an active and focused internship program for its students, giving them access to elective internship opportunities in the Denver metropolitan area and beyond. Finally, the college encourages students to take control of their own education and supports, within its ability, any reasonable proposals from students that would enrich their own educational experiences.

Scholarships/Financial Aid

Graduate students in the college have access to a number of scholarships and other financial assistance funds. Some of these funds are provided by the institution itself, while others are

provided by external sources like the American Institute of Architects Architectural Education Foundation, the American Planning Association and the Associated Landscape Contractors of Colorado. For further information on scholarships and graduate tuition awards, visit the college's [website](#) or request a list via e-mail at CAP@ucdenver.edu. For information on federal and state financial aid, contact the Office of Financial Aid, University of Colorado Denver, Campus Box 125, P.O. Box 173364, Denver, CO 80217-3364, 303-556-2886 or visit their [website](#).

Admissions for Graduate Programs

Application Deadlines

For Fall Semester:

- Master of Architecture Program (MArch): January 15
- Master of Landscape Architecture Program (MLA): February 1
- Master of Urban and Regional Planning Program (MURP): February 15
- Master of Science in Historic Preservation Programs (MSHP): Priority Deadline March 15
- Master of Urban Design Program (MUD): Priority Deadline March 15
- PhD in Design and Planning Program (PhD): February 1

Decision notification dates vary by program

For Spring Semester:

- We do not offer spring admissions for any graduate programs.

General Requirements

The college periodically updates admissions deadlines and application procedures. Please visit the college [website](#) to view current deadlines and application procedures.

Applicants to the College of Architecture and Planning graduate programs are required to submit the following credentials:

Applicants to the College of Architecture and Planning graduate programs are required to submit the following credentials:

- University of Colorado application for graduate admission form.
- Two official transcripts from each institution the applicant has attended. Transcripts must be mailed by the institution directly to the college. A certified literal English translation also must be submitted for documents that are not in English.
- Three letters of recommendation.
- Statement of purpose: Applicants to all programs must submit a statement summarizing

career objectives and reasons for pursuing the intended program of study. Applicants to the MURP program should indicate their area of concentration. Applicants to the PhD program should discuss the intellectual and policy challenges they hope to address, methodological skills they plan to pursue, and briefly note any tentative dissertation research topics and, if possible, overlap of research interests with program faculty.

- Supporting materials architecture and landscape architecture: Applicants to the graduate architecture and landscape architecture programs are required to submit a portfolio. A portfolio is 6-12 bound pages, 8.5 × 11 inches. Slides are not accepted. A portfolio is an orderly presentation of one's work. This includes examples of creative and analytical work including but not limited to essays, papers, photographs and photographic reproductions of artistic work such as sculptures, drawings, paintings, musical compositions and other fine arts. A stamped, self-addressed envelope must be included for return of the portfolio. Applicants to architecture and landscape architecture are encouraged to submit GRE scores if their GPAs are below 3.0.
- Supporting materials for urban and regional planning: Applicants to the urban and regional planning program should submit their statement of purpose, a resume and a copy of a student or professional paper or project. Applicants to the urban and regional planning program are encouraged to submit GRE (general) scores; those whose undergraduate GPA is below 3.0 are required to submit GRE scores.
- Supporting materials for the PhD: Applicants to the PhD program must submit a sample of written work and any other evidence relevant to admission to the program, in accordance with submission guidelines that can be obtained from the college. Applicants to the PhD program are required to submit GRE scores.
- Application fee. Nonrefundable (\$50, U.S. residents; \$75, international applicants).

Confirmation Deposit

A nonrefundable confirmation deposit of \$200 is required to secure an applicant's place in the college. The deposit is due at the time the applicant accepts the program's offer of admission. The deposit will be applied to the first semester's tuition when the student registers for classes. This deposit is in addition to the \$200 Registration Advanced Deposit that all students are required to pay to the Bursar's Office each semester before they register.

Academic Policies for Graduate Programs

Academic Standing

Students must maintain a minimum overall GPA of 3.0 in the graduate programs to remain in good standing and to graduate. If a student's GPA falls below a 3.0, then he or she will be placed on academic probation beginning the following semester. If the GPA remains below a 3.0 after the probationary semester, then he or she may be dismissed from the college.

Grade Appeals

Any student may appeal the grade he or she receives in a class within 30 days from the issuance of the grade. The student should first discuss the issue and adjustment sought with the relevant course instructor. If the course instructor does not reply within 30 days, the student submits a written appeal to the department chair. Within 30 days, the department chair shall process the appeal and prepare a written report explaining the reason(s) for the department recommendation. If the grade appeal still remains unresolved at the department level, the student submits a written request to the associate dean of academic affairs, who will direct the Academic Affairs Committee to review the appeal. If the grade appeal remains unresolved at the college level, the student may appeal to the dean.

Attendance and Timeliness of Work

Students are expected to attend all meetings of classes. Excessive unexcused absences may result in a grade reduction at the discretion of the instructor. Absence from a class will be excused for verified medical reasons, religious obligations or for extreme personal emergencies. The student may be required to furnish evidence.

Students' assignments are to be completed in a timely manner. Any assignment turned in late may have its grade reduced by an amount set at the discretion of the instructor. An assignment may be turned in late without penalty for verified medical reasons, religious obligations or for extreme personal emergencies. Students must have their instructor's written permission to turn an assignment in late. Students with excused late work may turn in the assignment by the end of finals week without penalty. Otherwise, the grade "I" will be assigned at the discretion of the faculty.

Course Sequencing and Advancement

Programs in the college are structured so that certain courses must be taken concurrently, others sequentially. Students will not be allowed to enroll in a course if its co-requisites or prerequisites have not been satisfied.

Originality of Work

Programs in the college are structured so that certain courses must be taken concurrently, others sequentially. Students will not be allowed to enroll in a course if its co-requisites or prerequisites have not been satisfied.

Retention of Student Work

The College of Architecture and Planning may, with a student's written permission, retain student work submitted in fulfillment of class requirements for a period of time. This retained work is normally used to provide accrediting agencies with tangible evidence of performance, to serve as additional visual aid material in presentations to other students and to contribute to possible educational exhibits requested by the university community and the general public.

Departments and Programs

Programs

Certificate

Design Build Graduate Certificate

Geospatial Information Science Graduate Certificate

Master of Science

Historic Preservation MS

Master of Urban Design

Urban Design MUD

Doctor of Philosophy

Design and Planning PhD

Architecture

Programs

Bachelor of Science

Architecture BSArch

Master of Architecture

Architecture MArch

Landscape Architecture

Programs

Master of Landscape Architecture

Landscape Architecture MLA

Urban and Regional Planning

Programs

Master of Urban and Regional Planning

Urban and Regional Planning MURP

College of Arts & Media

[Complete Course List for the College of Arts & Media](#)

Interim Dean: Laura Goodwin, Ph.D.

Associate Dean, Academic and Student Affairs: Joann Brennan

Assistant Dean, Budget and Administrative Services: Kathryn (Bryn) Quintana

Contact

Dean's Office

Office of Advising and Student Services

Physical Location:

Arts Building, Suite 177

1150 10th Street

303-556-2279

Fax: 303-556-2335

Mailing Address:

College of Arts & Media

Campus Box 162

P.O. Box 173364

Denver, CO 80217-3364

"Art Changing Lives"

Mission: The College of Arts & Media (CAM) exists at the intersection of art, technology and commerce, and as such, faculty and students use powerful art making, expansive teaching/learning and strategic service to connect deeply with the arts disciplines and the creative industries —as these currently exist and as they might become.

At the College of Arts & Media, we view the arts as central in enabling people to express and know themselves and understand the world around them. We attract students from the Denver area as well as from across the country and around the world. Our students pursue individualized goals, such as seeking a first degree, making a career change or enriching personal growth. Our faculty bring both professional experience and artistic excellence to the classroom. Through connections and workshops with arts professionals and internships, CAM students are able to explore their chosen professions. CAM develops and maintains cooperative relationships with civic groups, regional arts agencies, museums, galleries, performance venues, public schools, community colleges, professional societies, and the business community. The College of Arts & Media is committed to expanding its international presence.

College Goals

1. The College of Arts & Media fosters, inspires and models creativity founded upon the accumulated knowledge of human civilization.
2. The college operates at the intersection of art, technology and the creative industries.
3. The college develops artists committed to social responsibility and citizens who will advocate for the role of the artist in society.
4. The college is a center of cross-cultural exchange and understanding.
5. The college enriches the quality of life in the larger community, builds community partnerships and encourages mentorship.
6. The college integrates interdisciplinary modes of learning and creating.
7. The college adapts to meet the needs of diverse student constituencies.

College Values

Experimentation and Innovation
 Excellence and Professionalism
 Community
 Creative Research and Scholarship
 Leadership
 Entrepreneurship
 Technological Innovation
 Critical Thinking
 Diversity, Accessibility and Equity
 Intellectual Freedom and Artistic Integrity
 Sustainability
 Civic Engagement

Experiential Learning
Social Responsibility

Programs

The College of Arts & Media (CAM) offers MS, BS, BFA and BA degrees in a wide range of arts disciplines in three departments: Theatre, Film and Video Production (TFVP), Visual Arts (VA) and Music and Entertainment Industry Studies (MEIS). Our vision, mission and values guide our teaching and learning, creative research and scholarly discovery, as well as our engagement with the university, the creative industries and professional fields.

Faculty in CAM design their courses with explicit learning outcomes that define knowledge (what students will know) and skills (what students will be able to do). Dispositional outcomes that describe how students will be changed are often included. Sequentially-designed courses enable CAM students to engage in art-making of consequence, embrace creative innovations, integrate new technologies in their work, and build connections to creative industries. Our faculty infuse real-world knowledge in the classroom and create opportunities for students to develop an understanding of how their own art-making and scholarly pursuits impact others. Working sessions with arts professionals, lectures and workshops by visiting artists, internships with entertainment companies and other challenging opportunities let students connect their learning to careers in the creative industries.

Application Deadlines

Music and Entertainment Industry Studies (MEIS) Department:

Undergraduate: fall admittance only

February 11, 2013 - April 12, 2013 - Priority Application Review

March 29, 2013 - CU Denver Application Deadline

April 12, 2013 - Final MEIS Application Deadline

April 15, 2013 - April 30, 2013 - Final MEIS Review and Notification of Admission Status

Graduate: Master of Science in Recording Arts: February 15 (fall admittance only)

Visual Arts Department

Digital Design, Digital Design - Scientific Media Design Track, Illustration, Painting/Drawing, and Photography Emphases only:

Spring admittance only: November 1 - Portfolio Review

3-D Graphics and Digital Animation Emphasis only:

Fall admittance only: Application deadline to be announced in the preceding spring

Theatre, Film and Video Production Department, as well as other emphases in Visual Arts:

Priority University Application Deadlines:

Fall - April 1

Spring - October 1

Summer - March 1

Facilities

CAM is committed to both traditional and new technologies and celebrates the dynamic synergy between the two. CAM students can take advantage of superb studios, laboratories, equipment, galleries and performance spaces on campus. Students across all three CAM departments create work in computer labs where equipment and software are upgraded regularly. Most CAM studios are open for use by enrolled CAM majors, minors and graduate students when classes are not scheduled.

Music Facilities

- Five recording studios
 - Three studios include Surround Sound capabilities
 - Four studios are ProTools HD equipped
- Large inventory of microphones and outboard equipment available
- Vintage keys collection which includes DX-7, ARP Odyssey, ARP 2600, MiniMoog, PolyMoog, D-10, YC-30, B3, and Rhodes
- MIDI lab featuring ProTools & Logic; supplemental access to 3 College of Arts & Media computer labs
- Consoles include Portico 5088, Yamaha DM2000, DigiDesign Control 24 and Mackie 32x8 Bus
- Workstations include: ProTools, LogicPro and others for mastering, sequencing and synthesis applications
- 16-station piano lab featuring Apple Macintosh iMac computers with a wide selection of musical and songwriting/composition software applications
- Eight performance teaching studios
- 12 practice suites
- Private teaching studios for voice, piano, guitar, bass, drum kit, and percussion
- Audio/video forensics labs at the National Center for Media Forensics

Visual Arts Facilities

- Photography labs with black-and-white, non-silver, digital imaging and color capabilities, and large-format digital, color and black and white printing
- Sculpture lab with wood shop, metal shops and a foundry
- Drawing and painting studios with natural light
- Digital design labs, sound booths, editing suites, and video and digital cameras for student use
- Digital animation center computer labs and motion capture studio
- Serigraphy and visual arts foundations studios

- Auraria Visual Resources Center digital collection of contemporary and historical images, music and video
- Emmanuel Gallery, a tri-institutional arts space for student and faculty exhibitions and special exhibition events
- Partnership Gallery in the Downtown Denver Courtyard by Marriott for rotating exhibitions of faculty and student work

Theatre and Film Facilities

- Two "black box" production studios
- Scene shop and paint frame
- Costume shop
- Equipment cage stocked for video production, including; cameras, lighting, sound and grip equipment
- Computer labs equipped with digital editing facilities
- A cine-complex screen for courses and semester ending student programs
- Auraria Media Center, with two 3-camera TV studios with full control rooms, isolation booth and lighting control

Kenneth King Academic and Performing Arts Center

- 520-seat Concert Hall
- 350-seat Eugenia Rawls Courtyard Theatre - proscenium theater with optional thrust stage.
- 200-seat Recital Hall
- Fully wheelchair accessible production facilities, including catwalks
- Assisted Listening System available in all venues
- Wireless access

Scholarship Opportunities

The university and CAM provide access to a variety of scholarships, studio and lab work opportunities and other financial support for students. Students are encouraged to review scholarship opportunities provided by CAM and the university through the university's [Scholarship/Resource Office](#) (303-352-3608).

Undergraduate Programs

Theatre, Film and Video Production

[Bachelor of Arts \(BA\) in Theatre, Film and Television with an emphasis in Theatre](#)

[Bachelor of Fine Arts \(BFA\) in Theatre, Film and Television with an emphasis in Film and Television](#)

[Theatre, Film and Television Minor](#)

Music and Entertainment Industry Studies

Bachelor of Science (BS) in Music

Performance emphasis

Singer/Songwriter emphasis

Music Business emphasis

Audition track

Non-audition track

Recording Arts emphasis

Audition track

Non-Audition track

Visual Arts

Bachelor of Arts (BA) in Fine Arts

Art History emphasis

Studio Art emphasis

Bachelor of Fine Arts (BFA) in Fine Arts

with emphases in

3-D Graphics and Animation

Digital Design

Digital Design - Scientific Media Design track

Illustration

Painting/Drawing

Photography

Sculpture

Transmedia

Minors

Art History

[Digital Design](#)

[Studio Photography](#)

[Sculpture](#)

[Studio Arts](#)

Declaring a Major/Minor

All undergraduate degrees offered through the College of Arts & Media comprise 120 semester hours. Students must choose a major to graduate. Minors are optional.

All CAM majors require students to select a degree plan (BA, BS or BFA) and an emphasis (see above links). More information about specific majors and emphases is also available on the [CAM website](#), under “departments.”

Students may choose to pursue a double degree, double major, double emphasis or minor. Each of these options may require more than 120 semester hours to graduate. Please consult a CAM advisor for additional information.

Minors

Departments in the college have developed a variety of minors. A maximum of 6 non-CU Denver credits can be used toward each minor. Please click the above links for specific minor requirements.

Students are not required to have a minor to graduate. Students may choose to declare a minor in CAM or through another college/school in the university. Students wishing to declare a minor in CAM should consult with a CAM advisor for details. More than 120 semester hours may be required to complete both a major and minor.

Double Emphases

Students may graduate with more than one emphasis in their major by completing all requirements for each emphasis (e.g., BFA in fine arts with a double emphasis in sculpture and photography). Completing these requirements will likely require more than 120 semester hours. Double emphases apply only to students completing two emphasis requirements, both within the same CAM major.

Double Majors

Students may graduate with more than one major in CAM by completing all requirements for each major within a single degree (e.g., a BA with a major in fine arts, art history emphasis AND a second major in theatre, film and television). Completing these requirements will likely require more than 120 semester hours. Double majors apply to students completing two program areas in two different CAM departments.

Double Degrees

Students may earn two degrees in the College of Arts & Media (e.g., BFA in fine arts and BA in theatre, film and television) or from two different schools or colleges in the university (e.g., BS in music and a BS in physics) simultaneously by fulfilling all requirements for both degrees. Students must complete a minimum of 120 semester hours applied toward the two degrees, and likely more will be needed to fulfill all requirements.

Second Degrees

Students who have been awarded a bachelor's degree from CAM may be granted a second bachelor's degree provided that (a) all general requirements for that degree have been met; (b) the degree plan for the second bachelor's degree is different from the major for the first; and (c) the college and major department residence requirements are satisfied. A second degree from the college requires a minimum of 30 additional semester hours of credit.

General Degree Requirements

The following requirements apply to all undergraduates earning a degree in CAM. Please refer to the specific department and emphasis pages in this catalog for additional information.

- Minimum of 120 semester hours passed
- Fulfillment of major degree requirements
- Fulfillment of [CAM General Course Requirements](#)
- For BA and BFA degrees: a minimum of 45 semester hours of upper division (3000/4000-level) course work passed
- A cumulative GPA of 2.0 in all University of Colorado course work
- A minimum of C (2.0) for each course applied toward the major
- A minimum of 30 semester hours of resident credit

Requirements for Undergraduate Admission to the College of Arts & Media

A student wishing to matriculate in the College of Arts & Media (CAM) must be admitted at three levels: (1) as a student of CU Denver, (2) as a student in CAM and (3) as a student in a CAM major, degree and emphasis. Acceptance to majors, degrees and emphases in CAM is selective based on a variety of factors, which may include:

- Careful evaluation of secondary school records, which may include recommendations from guidance counselors, advisors, teachers and professionals
- Scores on standardized tests
- Creative review in the form of an audition, portfolio review or other evaluation

Formal acceptance into specific degree programs or emphases may be contingent on successful academic and creative work, assessed following completion of foundation courses in the major.

Overview

- Students may enter the college as undecided (or undeclared) CAM students or may indicate intended area(s) of study.

- CAM recommends that undeclared students seeking entry into emphases that do not identify a review process declare their areas of study quickly since program emphases are designed sequentially, and many courses are offered in the fall or spring only. CAM recommends that students begin their major sequence of courses in the fall, as many spring-only courses require fall courses as prerequisites.
- Students may be accepted on a provisional basis for specific programs or emphases, with full acceptance pending satisfactory completion of foundation coursework and successful review by departmental faculty.
- The application is based on two parts: academic and creative/artistic.
 1. The CU Denver Office of Admissions evaluates the academic component.
 2. Undergraduate program emphases at CAM may require an incoming artistic/creative assessment such as an audition, portfolio review or an entrance interview.
- Artistic/creative review is conducted by the appropriate department or area (see specific emphases for details). Both the academic application and the artistic/creative materials are evaluated as a whole to determine admission and must be completed before an admissions decision can be made. Creative material, if required, should be submitted directly to the specific department or area.
- Some departments/emphases require sophomore reviews prior to students declaring specific emphases. Please read through the departmental pages of the catalog for additional information.

New freshmen and new transfers must meet the university entrance requirements as outlined in the [Information for Undergraduate Students](#) section of the catalog, in addition to appropriate artistic reviews/assessments, outlined in the CAM section of this catalog.

Admission to the MEIS Department

Acceptance into the CU Denver Department of Music and Entertainment Industry Studies (MEIS) is determined on a competitive basis with specific entrance evaluation requirements for both freshman and transfer students. All applicants will be placed in an enrollment pool, and admissions decisions will be based on several factors, including an indexed composite score of cumulative GPA, music aptitude exam score and an audition (if applicable). Application materials must be received by the deadline—no late applications will be considered. No admissions decision will be made for the MEIS program until the candidate's file is complete and the department has forwarded artistic/creative review results to the [Office of Admissions](#).

Prospective students should refer to the [MEIS website](#) for current requirements, deadlines and procedures.

Notes:

- Please be aware that neither the university nor CAM returns creative materials and will not assume any liability or responsibility for original materials submitted by an applicant that are lost or damaged while in its possession.
- Candidates are urged to complete and file their applications as soon as possible. Applicants will be notified promptly if additional information is required. No admission decision will be made without complete information.

- Courses reach maximum enrollment quickly; students are encouraged to apply early.
- The music degree's emphasis in recording arts permits provisional program acceptance only, pending completion of sophomore-level review, including foundation course work, entrance examinations, formal application and acceptance by departmental faculty. Students will not be allowed to take upper-division recording arts courses until they have been formally accepted into the program/focus. Please visit the [department website](#) or contact CAMadvising@ucdenver.edu for more information.

Students who wish to pursue the BS in music with an emphasis in performance or singer/songwriter must pass a sophomore proficiency recital on their primary instruments prior to continuing the program and taking advanced level music courses.

Admission into the Visual Arts Emphases and Minors

Admission into the BFA digital design emphasis or minor, digital design emphasis - scientific media design track, illustration emphasis, painting/drawing emphasis, photography emphasis or minor, and 3-D graphics and animation emphasis is competitive with specific entrance evaluation requirements. Please see the [Fine Arts BFA](#), [Digital Design Minor](#) and [Photography Minor](#) pages in this catalog for details.

Intra-University Transfer

Students who want to transfer to the College of Arts & Media (CAM) from another college or school within the university must formally apply to CAM and pass appropriate reviews/assessments as outlined in this section of the catalog. To be considered for admission, students must have a minimum 2.0 cumulative University of Colorado GPA.

Transfer of Major within the College of Arts & Media

Undergraduate students who wish to transfer from one department to another within CAM must currently be in good academic standing, pass appropriate reviews/assessments as outlined in this section of the catalog and notify the CAM Advising Office by submitting a change of major form.

Undergraduate Academic Advising

Office of Advising and Student Services

Location: Arts Building, Suite 177

Telephone: 303-556-2279

Fax: 303-556-2335

E-mail: CAMadvising@ucdenver.edu

Web site: <http://cam.ucdenver.edu/advising>

The college's Office of Advising and Student Services is the main information center for CAM. Advisors assist students in tracking their academic progress, discussing remaining requirements and course sequencing, and in offering appropriate referrals to faculty and other university services (e.g., Career Center). The office also coordinates student notifications (e.g., Dean's List, probation/suspension, scholarship opportunities) and college academic events (e.g., Open

House, commencement, orientation) as well as maintaining advising-related materials. While students are encouraged to make use of the service of academic advising throughout their college career, students are ultimately responsible for their own academic progress.

Academic advising may be mandated or suggested prior to registration depending on the student's status. All new freshmen and transfer students are required to meet with an academic advisor prior to registering for their first semester of courses. Students can view registration holds in the Student Center of their UCDAccess accounts.

New Freshmen

All new freshmen are required to attend new student orientation where they will:

- Learn about the university
- Attend the CAM session to discuss academic programs, services and career opportunities in the creative industries
- Register for courses

Information about new student orientation will be mailed to students and is available by calling 303-315-3502. Students are encouraged to register for the earliest orientation they are able to attend.

CAM also recommends that new freshmen entering fall semester take a [First Year Seminar course](#), offered through the Office of Undergraduate Experiences.

Second-Semester Freshmen and Undecided Students

CAM freshmen with declared majors and undeclared arts and media students are assigned to the [Academic Success and Advising Center](#). ASAC introduces students to university and college policies and explains core and basic degree requirements. These students are required to meet with an advisor prior to registering each semester. Students are encouraged to bring sample schedules to their advising appointments.

Academic Success and Advising Center

Location: North Classroom, Suite 2024

Telephone: 303-352-3520

E-mail: ASAC@ucdenver.edu

Web site: www.ucdenver.edu/life/services/asac/Pages/default.aspx

New Transfers

New transfers follow a two-step process:

1. The Office of Admissions evaluates the student's prior transcript(s) and determines an initial set of courses to be transferred.
2. CAM advisors and faculty determine how these courses fit into the student's degree plan, course by course. Students should set up an appointment with a CAM advisor to complete this process by calling 303-556-2279. Students may be referred to faculty for review of courses in the major.

If certain courses are not initially accepted by the Office of Admissions, the student and advisor can discuss the petition process for accepting these courses. If the student's petition is approved, the advising office will request that the Office of Admissions accept the course(s) in transfer.

New transfers are required to receive individual academic advising to become eligible to register for courses their first semester.

Continuing Students

Students with declared majors who have completed at least 30 semester hours are assigned to the college's Office of Advising and Student Services. Please see above for contact information and location. Students are encouraged to meet with an advisor at least once per year. We recommend bringing a sample schedule to each advising appointment.

Periodically, students may find a hold placed on their registration by the Office of Advising and Student Services, requiring them to meet with a CAM advisor prior to registering. Students can view registration holds in the Student Center of their UCDAccess accounts. As other offices may also place a hold on a student's registration, students are encouraged to resolve any registration holds through the appropriate offices prior to their registration date/time.

Students approaching their junior and senior years are encouraged to meet with a faculty mentor in their area of study to discuss internships, career/employment opportunities, graduate school, professional organizations and other post graduation information. Faculty contact information is available on the CAM portfolio website camarts.org. Students also may contact the Office of Advising and Student Services for suggested faculty referrals by interest.

CAM Undergraduate Academic Policies

Please see the [Registration and Records](#) and the [University Policies](#) pages of this catalog for academic policies that apply to all undergraduate students at the university. The policies that follow apply specifically to undergraduates in the College of Arts & Media.

Dean's List

CU Denver uses a fixed criterion across all colleges for determining eligibility for the Dean's List. This policy applies to undergraduate students.

For fall and spring semesters, students must successfully complete nine (9) graded hours in the semester. These courses can be both within and outside of the college. Metropolitan State University of Denver pooled courses will not be included in the GPA calculation nor will they apply toward the 9 hours required for consideration. The GPA for inclusion in the Dean's List is 3.75.

In the summer semester, students must complete six (6) graded hours. Course inclusion will be the same as in fall and spring semesters. The GPA for Dean's List in summer is also 3.75.

Scholarships tied to Dean's Lists may have additional requirements.

The Registrar's Office calculates the semester GPAs that are the basis for determining the Dean's List. Incompletes will not be considered in the calculation of minimum number of hours. The Dean's List will not be recalculated to include completed incompletes.

Graduating with Academic Honors

Academic honors are awarded at the time of graduation, based on cumulative University of Colorado undergraduate GPA. To be eligible for honors, a CAM student must have completed a minimum of 30 semester hours at the University of Colorado (on any CU campus). A cumulative CU GPA of 3.65-3.749 earns *cum laude*, a 3.75-3.849 earns *magna cum laude* and 3.85 or above earns *summa cum laude* honors designations on a degree for CAM students.

Good Academic Standing

Students at the university are expected to maintain progress in their degree program, as defined by being in “good academic standing.” Good academic standing requires a minimal cumulative GPA of 2.0 on all University of Colorado course work.

Academic Probation and Academic Suspension

Academic Probation

- Academic Probation is a warning to students that they are not progressing toward completion of their degree in a satisfactory manner.
- Students are placed on Academic Probation when their cumulative CU GPA falls below a 2.0 at the end of any academic term.
- Students are informed in writing (via university-assigned e-mail and postal letter) of their academic probation status.
- Students on Academic Probation will be required to complete the Academic Success Plan during their first semester on Academic Probation.
- Students will be required to schedule an appointment and meet with their academic advisor to discuss the completed Academic Success Plan before they will be allowed to register for the subsequent term.
- Students on Academic Probation will be required to schedule an appointment and meet with their academic advisor every semester that they are on Academic Probation before they will be allowed to register.
- Academic Probation requires that students achieve a minimum 2.3 semester GPA each subsequent term until their cumulative CU GPA is at least a 2.0 to return to good academic standing.
- Students must achieve a minimum 2.0 cumulative CU GPA to meet graduation requirements.
- Students who fail to earn the 2.3 semester GPA during any semester of Academic Probation will be placed on Restricted Academic Probation.
- Students have five semesters or 30 credits (whichever happens sooner) to raise their cumulative GPA to above a 2.0, or they will be placed on Academic Suspension.
- Once a student has raised his/her cumulative CU GPA to at least a 2.0, s/he will be removed from Academic Probation and notified via university-assigned e-mail that s/he is in Good Academic Standing.

Restricted Academic Probation

- Students who fail to earn the 2.3 semester GPA during any semester of Academic Probation will be placed on Restricted Academic Probation.
- Students are informed in writing (via university-assigned e-mail and postal letter) of Restricted Academic Probation status.
- Students on Restricted Academic Probation will be allowed to enroll for a maximum of 6 credits/2 classes per semester (whichever is more). A course and its attached lab are considered to be one course in this case.
- Students on Restricted Academic Probation will be required to schedule an appointment and meet with their academic advisor in order to register for courses.
- Students on Restricted Academic Probation will not be able to register online; they will need to register for courses using a Schedule Adjustment Form, which must be submitted to the Student Service Center (North Classroom, Room 1003) for processing.
- Restricted Academic Probation requires that students achieve a minimum 2.3 semester GPA each subsequent term until their cumulative CU GPA is at least a 2.0. Students must achieve a minimum 2.0 cumulative CU GPA to return to good academic standing and to meet graduation requirements.
- Students on Restricted Academic Probation who do not meet the 2.3 minimum semester GPA will be placed on Academic Suspension.
- Students who fail to raise their cumulative GPA to 2.0 or above in five semesters or 30 credit hours on Academic Probation and Restricted Academic Probation will be placed on Academic Suspension.

Academic Suspension

- Students on Restricted Academic Probation who do not meet the 2.3 minimum semester GPA will be placed on Academic Suspension.
- Students are informed in writing via certified/registered letter of their Academic Suspension status.
- The minimum duration of Academic Suspension is for a period of one year (three semesters, including summer term). Students placed on Academic Suspension will be unable to take courses from any CU campus during this time.
- Should a student be placed on Academic Suspension while registered for the next semester, s/he will be administratively dropped from their courses by the university.
- A student's Academic Suspension status is permanently indicated on his/her official University of Colorado transcript.
- During the one-year Academic Suspension period, students who wish to return to the university should consider one (or both) of the following actions:
 - Attend another regionally accredited college/university.
 - Students who choose to attend another institution while on Academic Suspension can take as many or as few credits as they choose, but must earn a 2.75 cumulative GPA in all transferable course work.

- Students should consult their academic advisor to discuss appropriate course work.
 - Use the time off to directly address and resolve the factors that contributed to the academic difficulty.
- After the one-year suspension period has elapsed, a student must petition the appellate committee of the school or college he/she wishes to enter for readmission and meet at least one of the following criteria:
 - Attendance at another regionally accredited college/university where the student earned a minimum cumulative GPA of 2.75 in transferable credit.
 - Satisfactory explanation of their previous academic difficulty, demonstration of what has changed, and how this will allow the student to now achieve and maintain Good Academic Standing (including a semester GPA of at least 2.3 and a cumulative GPA of at least a 2.0). Students who choose to petition their college's appellate committee for readmission must submit their petitions by the following deadlines:
 - For fall admission: June 1
 - For spring admission: December 1
 - For Maymester/summer admission: April 1
- If a student is granted readmission and his/her CU GPA is below a 2.0, s/he will be readmitted on Restricted Academic Probation. These students must meet the condition of Restricted Academic Probation every semester until his/her cumulative CU GPA is at least a 2.0.

Second Academic Suspension

- Students who are readmitted after their first Academic Suspension and fail to meet the conditions of Restricted Academic Probation for a second time are placed on a second suspension for an indefinite period of time.
- Students on a second suspension may be readmitted to the university only by petition to the college's appellate committee.
- Students will not be considered for readmission unless they have demonstrated significant improvement in academic performance at the college/university level and/or considerable and positive change in personal circumstances.

Leaves of Absence/Returning Students

Students who have not attended the university for one calendar year or more should refer to the "Readmission Requirements for Former Students" in the [Information for Undergraduate Students](#) chapter of this catalog. Due to the dynamic nature of the CAM programs, returning students who have not attended in more than five years must complete their programs based on the current curriculum and policies. For assistance with your specific situation, please consult a CAM advisor.

Independent Study

The College of Arts & Media has very specific policies concerning eligibility and registration for independent studies. Students should consult a CAM advisor or their faculty mentors for specific

eligibility criteria and registration procedures. The number of credits to be earned for an independent study project shall be determined at the time of registration. The college and academic programs have specific policies on how independent study credits may apply to the bachelor's degree. A maximum of 12 semester hours of independent study may apply toward the bachelor's degree and cannot be used to replace existing and available courses. Please contact CAMadvising@ucdenver.edu for additional information and appropriate paperwork. Independent study should be added by the census date (add/drop deadline) as noted on the academic calendar.

Internships

Internships provide important educational and professional experience. A maximum of 3 hours of internship credit per semester and 9 hours overall is allowed. Internship credit may not be awarded retroactively or after the student begins internship hours. Students should consult with an academic advisor about the counting of internship credits in their degree plans.

The college requires that students have the following to qualify for an internship:

- 60 completed semester hours
- Minimum of a 2.75 cumulative University of Colorado GPA

Specific academic programs may have additional eligibility requirements for an internship. Students seeking an internship should consult with the CAM Office of Advising and Student Services and the Experiential Learning Center. Additional information is available by contacting CAMadvising@ucdenver.edu. Occasionally opportunities arise mid-semester; in such cases, students must file a Special Processing Form to add the course and, depending on the date, may be required to petition the advising office and/or the associate dean for approval to add an internship.

Graduate Programs

The [Department of Music and Entertainment Industry Studies](#) (MEIS) offers a master of science in recording arts (MSRA) with emphases in recording arts and media forensics. For details on program requirements, admissions and policies, please see the [MSRA page](#) or the [Media Forensics](#) page in this catalog.

CAM General Academic Policies

Please see the [Registration and Records](#) and the [University Policies](#) pages of this catalog for academic policies that apply to all students at the university. The policies that follow apply specifically to both undergraduate and graduate students in the College of Arts & Media.

Incompletes

The College of Arts & Media has very strict guidelines for granting incomplete grades. They include but are not limited to the following:

- Reason for incomplete must be a verified, compelling and extraordinary circumstance beyond student's control that made completion of the course impossible

- The majority of course requirements (75 percent) must have been completed with a passing grade to be eligible for incomplete (C [2.0] for major/minor courses and select general education courses; D- [0.7] for most general education and general elective courses; and B [3.0] for courses toward a graduate degree)
- CAM course completion agreement must be signed by both the instructor and student, with final approval by the associate dean
- All course work must be completed within one calendar year of the end of the original course
- Requests for a retroactive change from a letter grade to an incomplete will not be considered

The student is responsible for requesting an incomplete grade and submitting all of the appropriate paperwork and obtaining approvals. Please contact CAMadvising@ucdenver.edu for additional information.

Curricular Changes and Course Substitutions

Undergraduate students are required to complete the CAM General Course Requirements that were in effect when they began as a degree-seeking student at CU Denver, and major requirements as outlined when they declared their degree, major and emphasis and were admitted to the program. Similarly, graduate students fall under the degree requirements that were in place when they first enrolled in their programs. If a program revises its curriculum, students have the option of following their original degree requirements or the revised curriculum. Occasionally, courses under the original requirements may no longer be taught or may not be available for a set duration. In this case, the department will approve course substitutions.

Course substitutions in the major must be approved by the designated area head in the specific program area, the department chair and/or possibly the associate dean. Course substitutions in the CAM General Course Requirements must be approved by the Core Curriculum Oversight Committee through a petition process. Please contact CAMadvising@ucdenver.edu for additional information.

Students who switch majors (e.g., BS in music to BA in theatre, film and television) are required to complete the major curriculum in place when they declare their new degree or major. Students who switch degrees within the same major (e.g., BFA in fine arts to BA in fine arts) will be required to complete the degree curriculum that is in place when they declare their new degree. Students who switch emphases within a degree and major will be required to complete the emphasis curriculum that is in place when they are accepted into the new emphasis.

Applying to Graduate

Students expecting to graduate are required to apply to graduate via UCD Access by the published deadline. Students who do not apply by the deadline must apply to graduate for the following semester.

Applications will be accepted from the first day of the student's registration for the semester in which the student plans to graduate through Census Date (the drop/add deadline) of the

semester. Applications are due by 5 p.m. on census date of the semester in which the student is applying to graduate as noted in the [academic calendar](#). Students are encouraged to meet with a CAM advisor the semester before they intend to graduate to review graduation procedures and degree requirements.

Students who have not attended the university for one calendar year or more must gain readmission to the university prior to applying for graduation. It is the student's responsibility to apply with enough time for the readmission process to be finalized by the census date.

Academic Policies Committee

The CAM Academic Policies Committee is the appellate committee for all student-related academic petitions, issues and appeals. The committee is responsible for the evaluation and interpretation of the approved academic policies of the college. Questions about interpretation of policies may be directed to the Office of Advising and Student Services. Procedures and petition guidelines are available at the [CAM Web site](#) or by emailing CAMadvising@ucdenver.edu.

Business School

Dean: Sueann Ambron

Associate Dean of Faculty and Programs: Clifford E. Young

Associate Dean of Operations: Jean-Claude Bosch

Assistant Dean Programs: Linda J. Brooker

Assistant Dean Budget: M. Judy Chavez

Contacts

Dean's Office

Business School Building
1475 Lawrence Street
Denver, CO 80202

303-315-8000

Fax: 303-315-8040

www.business.ucdenver.edu

Mailing Address

The Business School
Campus Box 165
P.O. Box 173364
Denver, CO 80217-3364

Website: <http://business.ucdenver.edu>

Admissions/Advising

Undergraduate: 303-315-8100

Graduate: 303-315-8200

Application Deadlines**Undergraduate***Fall*—August 1*Spring*—December 1*Summer*—May 1**Graduate***Fall*— Domestic applications April 15

International applications March 15

Spring—Domestic applications October 15

International applications September 15

Summer—Domestic applications February 15

International applications January 15

Applications received after these dates may not be eligible for scholarships.

Executive MBA*Fall*—June 1**11-Month MBA***Fall*—June 15

Located in the heart of the Rocky Mountain business community, the Business School at the University of Colorado Denver prepares students with the knowledge and skills necessary to become effective, responsible business professionals. We're able to achieve a standard of excellence by bringing together nationally recognized faculty and highly motivated, mature students in an intellectually challenging academic environment. CU Denver's Business School is a research institution. Because our faculty are nationally recognized for scholarly research as well as for their teaching skills, our students have the opportunity to be on the leading edge of business management theory and practice. Our class schedules and curriculum offer flexibility to meet your needs whether you plan to attend full or part time, day or evening. Whether you're an experienced working professional seeking an advanced degree or preparing for a new career in the business world, you'll gain the knowledge and perspective necessary to succeed in today's challenging business environment.

Educational Goals

The Business School is committed to superb teaching, connecting theory to practice that focuses on:

- current and relevant knowledge and skills necessary for success in the highly competitive global business environment
- experience in cooperative and team-based work skills
- integrated professional and functional expertise

- sensitivity to cultural and ethnic diversity

Our graduate programs serve both traditional and nontraditional students who have extensive work experience. The MBA serves the needs of students who desire a general business education. The professionally oriented MS degrees serve the needs of students who desire greater specialization, particularly students who have already obtained an undergraduate business degree. Large numbers of our graduate students will be drawn from national and international locales.

Our undergraduate program, which serves both traditional and nontraditional students, leads to a baccalaureate degree in business with a substantial liberal arts component. The program is closely linked, through articulation agreements, to lower-division programs offered by Colorado's four-year and community colleges.

Key elements of our academic programs are the provision of top-quality career advising and placement services, as well as flexible schedules and programs to meet a wide range of student needs. We are committed to assisting our students' efforts to pursue rewarding careers.

Faculty

Our nationally recognized faculty members are vigorous and enthusiastic about teaching and research. Faculty members hold degrees from the nation's leading business schools, including Berkeley, Harvard, Stanford, University of Chicago, University of Pennsylvania, UCLA and Yale. Many of them also bring years of valuable experience in private industry. Their interdisciplinary expertise, academic achievements, scholarly research and business experience provide students with a dynamic learning environment.

Scholarships and Financial Aid

Many programs for financial aid are administered by the [Office of Financial Aid](#). Call 303-556-2886 for detailed information.

Thanks to the generous support of the Colorado business community and others, the Business School has a significant number of scholarships to offer its students. Scholarships are awarded on the basis of merit and/or financial need. The amount of the award and the number of awards available vary.

Thirty different scholarships are available to eligible Business School students, with multiple awards from most scholarships. Go to <http://www.business.ucdenver.edu> for more details.

- *Undergraduate* scholarships include the Board of Advisors, the Business School Undergraduate Excellence, the Carolyn Lee Henderson, the Robert E. Moore Memorial, the Business School Sustaining Student, the Dean's Community Scholarships, the Scholarship for International Study and the Dean's Scholarship for Continuing Undergraduate Business Students.
- The MBA Outstanding Scholar Award, the MBA Opportunity Scholarship and the MBA Faculty's Scholarship are given to qualifying MBA students.

- *Accounting* scholarships for both graduate and undergraduate accounting students include the Deloitte & Touche and Accounting Program Scholarship, as well as the Price water house Coopers Scholarship for undergraduate junior accounting majors only.
- *MS finance* scholarships are the MS Finance Fellows, open to graduate students in the finance program, and the Carolyn Lee Henderson Scholarship, designated for students in the finance program.
- *MS health administration* scholarships include the Abbott Fellows, AUPHA/McGaw, CU Denver MS Health Administration, Eugenie D. Sontag, Leland R. Kaiser, Medical Group Management and the MS Health Administration Alumni Scholarships.
- *MS information systems* students may apply for the Dean's Scholarship in Information Systems.
- The *MS international business* Merit Scholarship is open to students in the CU Denver MS international business program.
- *MS management or human resources management* students may apply for the Excellence in Management or the Excellence in Human Resource Management Scholarship.
- *MS marketing* students may apply for the MS Marketing Sustaining Student, MS in Marketing Fellows and Robert E. Moore Memorial Scholarships (also open to undergraduate marketing students).
- Four scholarships are available to students who take courses in entrepreneurial studies at the Richard H. and Pamela S. Bard Center for Entrepreneurship Development. These are the Coulter Foundation Scholarships in Entrepreneurial Studies and Business, and the Dean's Pursuit of Excellence, Mehalchin and Trueblood Scholarships.

Further information about these scholarships, including eligibility criteria and application forms, may be obtained by visiting the [Scholarship Resource Office](#) website at or by calling 303-252-3608.

Study Abroad

Transfer credit from study abroad programs requires prior written approval from the undergraduate or graduate program director. Students must meet with a business staff advisor to determine course acceptability prior to the semester in which they intend to study abroad. Information on the various programs is available at the [Office of International Affairs](#).

Institute for International Business

The Institute for International Business (IIB) was created in 1988 by the Board of Regents of the University of Colorado to serve as a center for the advanced study and teaching of international business. In 1993, the institute was designated a Center for International Business Education and Research by the U.S. Department of Education, one of only 25 such centers of excellence in the United States. Through the CIBER and other funding sources, the institute strives to help the faculties of the Business School and other university departments to internationalize curriculum, programs, certificates or other student-oriented endeavors. The IIB works in other ways to support faculty in their teaching, research and development activities. In addition, the institute designs and facilitates customized international programs and training for business, cooperates with other organizations to offer seminars and conferences and publishes a quarterly

newsletter to familiarize the Denver and regional communities with international business issues. Such initiatives help faculty, students and the business community to acquire the skills and expertise needed to be successful in our increasingly global economy. The institute also conducts and promotes research on the global economic aspects of competitiveness. Call 303-315-8436 for information.

Internships

Internships are included in the experiential learning requirement of the undergraduate business program. To be eligible to enroll in an internship for experiential learning credit, the undergraduate student must meet the following grade and course work requirements:

- the student must be in good standing with a cumulative GPA of at least 2.75, and a GPA in the area of emphasis of at least 2.0
- the student must have completed (a) all required lower-division course work and (b) at least 21 semester hours of the business core courses

Graduate students must be admitted to the Business School, be in good standing with at least a 3.0 GPA and have completed 15 semester hours of graduate work on the Denver Campus.

Interested students should contact the Experiential Learning Center (303-556-6656) for further details about the program.

General Academic Policies

Academic policies that apply to all students at CU Denver are described on the [Office of the Registrar website](#) and in the [University Policies](#) section of the catalog. The policies outlined on the following pages are relevant for both undergraduate and graduate students in the Business School. Individual policies appropriate only to undergraduate or graduate students are described under separate headings. Each student is responsible for knowing and complying with the academic policies and regulations established for the school. The school cannot assume responsibility for problems resulting from a student's failure to follow the policies stated in this catalog. Similarly, students are responsible for all deadlines, rules and regulations stated on the student portal.

Academic Ethics

Students are expected to conduct themselves in accordance with the highest standards of honesty and integrity. Cheating, plagiarism, illegitimate possession and disposition of examinations, alteration, forgery, falsification of official records and similar acts or any attempt to engage in such acts are grounds for suspension or expulsion from the university. In particular, students are advised that plagiarism consists of any act involving the offering of the work of someone else as the student's own. It is recommended that students consult with the instructors as to the proper preparation of reports, papers, etc., to avoid this and similar offenses. Also, actions that disrupt the administrative process, such as misrepresentation of credentials or academic status, other forms of deception or verbal abuse of university staff are grounds for suspension or probation. All discovered acts of dishonesty must be referred to the Business School's Internal Affairs Committee.

Admission to Business Classes

Enrollment in business classes is limited to students who have been admitted to business degree programs and to other students as described in the separate undergraduate and graduate policy sections. The course registration criteria are designed to meet a number of objectives:

- to assure access to business courses for students admitted into a business degree program
- to serve students in other colleges who have business-related education objectives or requirements
- to serve nondegree students who have specific career or education goals

Refer to the [student portal](#) each term for course availability and prerequisites.

Attendance Regulations

Students are required to attend classes, including online classes, on a regular basis. Absences must be arranged with the instructor and must conform with university and instructor policies on attendance.

Prerequisites

Students are expected to know and fulfill all prerequisites when registering. Prerequisites are in place for the benefit of the student. The Business School wants our students to have the best experience in their courses, and having the prerequisites for a course ensures that you are ready for the material that will be covered. See course listings for relevant prerequisites as many are strictly enforced. The Business School reserves the right to administratively drop students who enroll without the correct prerequisites. This action may result in the loss of tuition.

Course Numbering

The course numbering system used at CU Denver identifies the class standing required for enrollment. Students are expected to take 1000-level courses in their freshman year, 2000-level courses in their sophomore year, 3000-level courses in their junior year and 4000-level courses in their senior year. Courses at the 5000 and 6000 level are restricted to master's-level business students, and courses at the 7000 level are restricted to PhD students.

Adding Courses

Students may add courses to their original schedule through the census date (first 12 days of the fall or spring semester, first eight days of summer session). Instructor approval is required to add a course after the first week of classes. In some cases, instructors do not allow students to add their course if the student fails to attend the first week of classes. In addition, instructors may ask that a student be administratively dropped from the course for failure to attend the first week of classes.

Dropping Courses

Students may drop a course through the census date and it will not appear on the transcript. After census, a student who wishes to drop must obtain written approval from both the instructor and academic assistant dean or designate. The course and a grade of *W* will appear on the transcript. In order to drop beyond the 10th week, it will also be necessary to document

circumstances beyond a student's control. Any student who is failing a class will not be allowed to drop simply because of the grade, and an *F* will be recorded on the transcript. See the [academic calendar](#) for deadlines and costs involved.

Withdrawal

See the [Office of the Registrar](#) website for university-wide withdrawal policies. Note that the Business School normally requires instructors' signatures on withdrawal forms before the academic assistant dean's approval is granted. If an undergraduate student is dropping all classes in a particular semester, the student must complete part II of the Schedule Adjustment Form and submit to the undergraduate program director and financial aid (if receiving financial aid) for signatures. If a graduate student is dropping all classes in a particular semester, the student must complete part II of the Schedule Adjustment Form and submit to the academic assistant dean and financial aid (if receiving financial aid) for signatures.

Administrative Drop

The school reserves the right to administratively drop students who are incorrectly enrolled in business courses. Instructors also may recommend that students who fail to meet expected course attendance or course prerequisites be dropped from the course. Generally, students who are administratively dropped will not receive tuition refunds.

In some cases, failure to attend the first week of classes may result in an administrative drop from that course.

Note that students who never attend class are not automatically dropped from the course. The student is responsible for dropping courses and failure to do so will result in a tuition charge for the class and an "F" grade.

Appeal Procedure

Students should contact a staff advisor in the Business School's programs office (undergraduates call 303-315-8100; graduate students call 303-315-8200) for appeal and petition procedures pertaining to rules and regulations of the school.

Grade Appeal Procedure

For grade appeals, contact the Business School dean's office at 303-315-8000. With respect to grade complaints/appeals, neither the Internal Affairs Committee nor the Dean, nor any director, will offer an opinion with respect to the qualitative assessment of a student's work, but, may consider whether the procedures used to determine a grade were consistent with the syllabus and written amendments thereto. In instances where grading procedures were inconsistent with the syllabus and amendments, the Committee will recommend to the Dean a remedy for the student and/or a response to the instructor which is justified by the facts in the case. No passing grade will be changed after one year. Requests for grade adjustments/appeals must be made in the semester immediately following the semester in which the disputed grade was earned.

General Grading Policies

Plus/Minus Grading. Faculty have the option to use plus/minus grading.

Incomplete Grades. The only incomplete grade given in the school is *I*. An *I* grade is assigned only when documented circumstances clearly beyond the student's control prevent completion of course requirements (exams, papers, etc.). Students must sign a contract outlining how they will make up the missing work with the instructor giving the *I*. Students need not register for the course a second time. All *I* grades must be made up within the contract period (which may not exceed one year), or the *I* will automatically be changed to the grade of *F*.

Also, *I* grades must be completed and recorded at the Office of the Registrar no later than four weeks prior to graduation. The student is responsible for contacting the instructor to schedule the completion of the coursework.

Grade Changes. Grades as reported by instructors are final. Grade changes will be considered only in cases of documented clerical errors or when a student is making up an incomplete grade (*I*). All changes must be made within one year after the course has been taken, unless highly unusual circumstances can be documented and the change has been approved by the school.

Pass-Fail or No Credit (Audit). With the exception of internships, experiential learning and travel study courses, the Business School does not permit election of pass-fail grading for any business course required for the student's degree. Students are not allowed to audit business courses.

Academic Programs

A carefully designed curriculum to prepare students for success in business administration is available for the student seeking either an undergraduate or graduate degree. The school offers courses leading to the bachelor of science in business administration (BS), master of business administration (MBA), the master of science (MS) and doctor of philosophy (PhD) degrees.

www.business.ucdenver.edu

It is possible to pursue two graduate degrees simultaneously, such as an MBA and an MS, or two MS degrees, through our [dual degree](#) programs. In addition to the programs in the Business School itself, we partner with other university departments to offer dual programs in MS finance/economics and the MBA in combination with graduate programs in architecture, economics, political science, urban planning and the MD. We also have a joint MBA/MS in international management degree with the Thunderbird School of Global Management in Glendale, Arizona.

Undergraduate Degree Programs

Associate Dean: Clifford E. Young

Academic Director: Ronald Ramirez

Director Advising and Admissions: Nancy A. Reed

E-mail: nancy.reed@ucdenver.edu

The undergraduate curriculum leading to the bachelor of science (business administration) degree is intended to help the student achieve the following general objectives:

- an understanding of the activities that constitute a business enterprise and the principles underlying administration of those activities
- the ability to think logically and analytically about the kind of complex problems encountered by management
- facility in the arts of communication
- a comprehension of human relationships involved in an organization
- awareness of the social and ethical responsibilities of those in administrative positions
- skill in the art of learning that will help the student continue self-education after leaving the campus

Undergraduate Admissions

Telephone: 303-315-8100

Fax: 303-315-8199

Admission of Freshman Students

Freshman applicants must have completed the college preparatory curriculum in high school, graduated in the top 25 percent of their high school class and achieved a score of at least 26 on the ACT or 1100 on the SAT. See [Information for Undergraduate Students](#) for further information on freshman admission.

Admission of Transfer Students

Applicants who have completed work at other collegiate institutions should review the information for transfer students in [Information for Undergraduate Students](#). In addition to general university transfer policies, the Business School evaluates course work to determine its appropriateness for the degree bachelor of science (business administration). Students who have completed more than 24 semester hours of transferable course work are evaluated for admission on the basis of their college GPA without regard to their high school performance. Transfer applicants with fewer than 24 transferable hours will be evaluated on the basis of both high school and college work.

Applicants are evaluated only on course work that applies to the business degree program. Generally, this will exclude course work of a technical or vocational nature and courses in activity PE and remedial subjects. For information about specific policies on transfer of credit, consult the undergraduate business program coordinator.

For admission to the Business School, a transfer applicant must have a minimum 3.0 GPA for all work applicable to the bachelor of science (business administration) degree and a 2.0 GPA in business courses. Applicants with less than an overall 3.0 GPA may be evaluated on their last 24 academic credits and admitted on a space available basis if the GPA is a 3.0 on the last 24 credits

Intra-University Transfer

Students who want to transfer to the Business School from another college or school of the University of Colorado Denver must formally apply to the Business School. To apply for an intra-university transfer, students must submit an intra-university transfer (IUT) form and transcripts from University of Colorado to the business program coordinator. Transfer forms are available at the Office of Admissions or the Business School Advising Office; transcript request forms are available at the Office of the Registrar. The transcript must include the student's most recent semester at the university. Students with previous course work from other institutions are also required to submit a copy of their transfer credit evaluations (advanced standings). Transfer deadlines are August 1 for fall semester, December 1 for spring semester and May 1 for the summer session. In general, the admission standards for intra-university transfer are the same as for transfer from other institutions as listed above.

Former Students

A University of Colorado student from another campus, or a Denver campus student who has not registered for three consecutive semesters (summers included), is considered a former

student and must reapply for admission. Former Denver campus business degree students will be automatically readmitted to the school for up to three years from the semester they last attended if they are in good standing (not on probation or suspension) in the school. Students who have not attended for more than three years, or who have completed the equivalent of 12 or more semester hours at another institution of higher education, must meet the admission and degree requirements applicable at the time they reapply.

Old Work Policy

For students newly admitted to the Business School and former business students readmitted to the school after an absence of three semesters, applicable credits up to five years old will be counted toward business degree requirements. Courses more than five years old will be evaluated individually for their current relevance to the degree program. Students may be required to update their knowledge by taking additional courses when past courses are outdated; in such cases, credit will be given for both courses. Generally, business courses more than 8 years old will not apply toward degree credit.

Second Undergraduate Degree

Students may apply to the Business School to earn a second undergraduate degree, provided the first undergraduate degree is in a field other than business. Persons who have already earned an undergraduate degree in business may not apply for a second undergraduate degree in business. Applications are available through the Office of Admissions.

If a student has an academic record that justifies consideration for a graduate program, that student is encouraged to apply for one of the Business School's master's degree programs. Call 303-315-8200 for information or refer to the graduate business section of the catalog.

Students who are accepted for the second undergraduate degree will be required to pursue courses in the sequence normally required for a business degree. For example, if a student registered for a second degree has not had the required mathematics or general education courses, these must be taken before the student will be eligible to register for business courses. Further, the basic business courses (core courses) must be taken before a student begins to pursue the major field.

Double Degree Programs

Numerous career opportunities exist for persons trained in both a specialized field and management. For this reason, students may be interested in combined programs of study leading to completion of degree requirements concurrently in two fields. For additional information, contact an undergraduate business staff advisor at 303-315-8100.

Undergraduate Advising and Academic Planning

Admissions Advising

Persons not yet admitted to the Business School can receive advising on course selection, admission requirements and other matters from an undergraduate staff advisor. To make an appointment, call 303-315-8100.

Admitted Students

Upon admission to the school, students execute a degree plan that identifies the courses required to graduate. This plan contains all the information needed to select courses and monitor progress toward completion of requirements for the bachelor of science (business administration). Business students are expected to assume responsibility for their own advising. This includes scheduling courses each term, meeting prerequisite requirements, being familiar with all the policies and procedures of the college and otherwise managing their own academic careers. Staff advisors are available to answer questions about unusual situations.

Career advising is available from the Career Center, 303-556-2250.

Undergraduate Core Curriculum—University of Colorado Denver

The faculty of the Business School, College of Engineering and Applied Science and the College of Liberal Arts and Sciences have established a core curriculum for undergraduate students. All undergraduate students are required to complete the undergraduate core curriculum in dependent of their college or major.

The undergraduate core curriculum for CU Denver is outlined [here](#); the core requirements for business students are specified in the section labeled “Business Program Requirements.”

The undergraduate core curriculum seeks to provide all baccalaureate students with basic intellectual competencies in English, mathematics, biological and physical sciences, behavioral sciences, social sciences, humanities and arts. Furthermore, the core curriculum promotes an awareness of cultural diversity and international perspective. The majority of the core curriculum is designed to be completed during a student’s freshman and sophomore years in order to provide the foundation for specific training in a student’s major discipline.

Graduation Requirements

The bachelor of science (business administration) degree requires the following:

Total Credits. A total of 120 semester hours.

A minimal level of proficiency must be demonstrated in one foreign language or in regional expertise. Students may satisfy the proficiency requirement by taking courses as described below.

Area of Emphasis. Completion of at least 9–27 semester hours of approved courses in the area of emphasis.

Residence. At least 30 semester hours of business courses (including the business area of emphasis) must be completed after a student’s admission to the Business School. The 30 hours for residence must include MGMT 4500 and 27 hours in other 4000-level business courses (including area of emphasis courses).

GPA Requirement. To graduate, a student must maintain a minimum cumulative scholastic GPA of 2.0 for all courses attempted at the university acceptable toward the BS (business administration) degree, 2.0 for all business courses and 2.0 for courses in the student’s area of emphasis.

Undergraduate Honors. Upon recommendation of the faculty, students who demonstrate superior scholarship are given special recognition at graduation. Students must achieve an overall University of Colorado GPA of 3.3 and a GPA of 3.5 in all business courses taken at the University of Colorado to be considered for *cum laude*. Those who achieve an overall University of Colorado GPA of 3.5 and a GPA of 3.7 in all business courses taken at the University of Colorado will be considered for *magna cum laude*. Those who achieve a 3.7 overall GPA and a 3.85 GPA in all business courses will be considered for *summa cum laude*.

Filing for Graduation. A senior audit is completed on all students who have completed 90 or more semester hours. Students must file an undergraduate candidacy form and diploma card and request a graduation evaluation prior to registering for their final semester. Failure to do so will delay graduation. Also, students desiring to change their area of emphasis after filing for graduation must have the change approved by the graduation coordinator prior to registering for their final semester. Changes after that time will delay graduation.

Undergraduate Core Curriculum for BS in Business

Intellectual Competencies

English, 6 semester hours

Mathematics, 3 semester hours

Knowledge Areas, 6-7 semester hours total

Biological and Physical Sciences, 7 semester hours

Humanities, 3 semester hours

Arts, 3 semester hours

Behavioral Sciences, 3 semester hours

Social Sciences, 3 semester hours

Cultural Diversity, 3 semester hours total

International Perspectives, 3 semester hours total

34 semester hours total

Business Program Requirements

Satisfaction of all the following:

Program Requirements

School proficiencies or other courses, 0-10 semester hours

[CU Denver undergraduate core](#), 34 semester hours

Business School specific graduation requirements - see Business School policy, 12 semester hours

Business core, 33 semester hours

International studies, 3 semester hours

Experiential learning, 3 semester hours

Area of emphasis and other courses, 21 semester hours

Other business and nonbusiness courses, 4 semester hours

120 semester hours total

Detailed descriptions of degree course plans that satisfy program requirements follow:

Business School Foreign Language Hours Proficiency

The Business School's foreign language requirement or regional expertise for the 2008–2009 academic year requires that students demonstrate a minimum level of proficiency in one foreign language.

This requirement is met through completion of one of the following:

- a second-year (Level II) high school course with a minimum grade of C (2.0)*
- a second-semester-level college course (1020) with a minimum grade of C (2.0)
- satisfactory proficiency testing, including taking and passing a proficiency exam

***High school courses will not apply toward degree credit; however, they will waive the specific requirement from having to be done at the college level.**

Student's choosing the regional expertise requirement with one year of high school foreign language or one semester of college level work can satisfy the requirement by completing a minimum of 6 semester hours of course work from an approved list that relates to the politics, arts, history, culture or economy of any region of the world other than North America.

Courses used in the expertise area must meet the Business School guidelines and can be chosen from the list specified by the Business School. Students should contact their business advisor to outline their program, 303-556-5800.

Students who must meet all the proficiency requirements through course work at CU Denver may find it necessary to complete more than 120 semester hours to earn the BS in business administration. The proficiency requirement must be completed during the first three terms in attendance at the Denver campus.

Academic Policies for Selecting Courses

Registration

For registration, go online to [Office of the Registrar website](#).

Maximum Units per Term

The normal scholastic load of an undergraduate business student is 15 semester hours, with a maximum of 18 hours allowed during the fall/spring semesters and 12 hours allowed during the summer session. Hours carried concurrently in the Division of Continuing Education, University of Colorado Boulder, or the CU Denver Extended Studies Programs, whether in classes or through correspondence, are included in the student's term load.

Repeating Courses

A failed course (grade of *F*) may be repeated; however, the *F* will be included in the GPA and will appear on the transcript. Students must earn at least a *C* grade in required business core courses. Core business courses must be repeated if the student earns less than a *C* grade.

Courses from Other Institutions

Business students must have the written approval of the business program director to register for courses (excluding MSCD pooled courses) offered by other institutions, including other University of Colorado locations. Credit will not be given for courses taken without approval. Grades of *C* or better must be earned to receive business degree credit. Generally, only nonbusiness electives or lower-division, nonbusiness requirements are acceptable for transfer from other institutions once a student has been admitted to the Business School. Students who, after admission to the college, take more than 12 semester hours from another institution, must reapply for admission to the college as transfer students and must meet the current admission requirements.

Metropolitan State College of Denver Courses

Business students may select their nonbusiness required and elective courses from those offered by MSCD. Grades of *C* or better must be earned to receive business degree credit; however, the grade is not computed in the University of Colorado GPA and is treated like other transfer credits. MSCD business courses may not be taken for CU Denver business degree credit.

Graduate-Level Courses

With prior written approval of the business program coordinator, students may take a maximum of 6 semester hours of graduate-level nonbusiness elective credits. Students must earn grades of *B* or better in graduate courses to apply the credits toward business degree requirements.

Pass/Fail

Only internships, independent studies and nonbusiness elective courses may be taken pass/fail. Required business and nonbusiness courses (including the campus core) may *not* be taken pass/fail. A maximum of 6 hours pass/fail credit may be applied toward the business degree. Courses taken in excess of the maximum will not be applied toward degree credit. Pass/fail determination must be made within the posted deadlines (at census dates) and may not be rescinded (unless approved by the undergraduate committee).

Correspondence Courses

Only 6 semester hours of credit taken through correspondence study (from regionally accredited institutions) will be applied toward the business degree. Business courses may not be taken by correspondence. All correspondence courses must be evaluated by the business program coordinator to determine their acceptability toward degree requirements, and the program coordinator's written approval is required *prior to* the student's registering for courses. Students may contact the Division of Continuing Education, University of Colorado Boulder, for correspondence course offerings and registration procedures.

Independent Study

Junior or senior business students desiring to work beyond regular course coverage may take variable credit courses (1–3 semester hours) as nonbusiness electives under the direction of an instructor who approves the project, but the student must have the appropriate approval before registering. A maximum of 3 semester hours of independent study course work may be taken in any one semester; a maximum of 6 semester hours may be applied toward degree requirements. An independent study request form must be signed by the student, the instructor, the program director and the director of advising and admissions.

Academic Policies for Suspension and Probation

To be in good standing, students must maintain an overall University of Colorado GPA of 2.0 (*C* = 2.0) or better for *all course work attempted* and a 2.0 GPA or better for *all business courses attempted*. PE activity courses, remedial course work, MSCD courses and repeated courses not approved by a business advisor are not included in this average. When semester grades become available, students falling below the 2.0 GPA will be notified of (1) probationary status or (2) suspension. Students are responsible for being aware of their academic status at all times; late grades and/or late grade notification does not waive this responsibility. School rules governing probation and suspension are as follows: **Any student whose overall GPA or business course GPA is less than 2.0 will be placed on probation immediately.** A student may be removed from probation when the overall GPA and business GPA have been raised to 2.0.

Academic Probation overall CU GPA

Students are informed in writing (via University assigned email and postal letter of their academic probation status. Students on academic probation will be required to complete the Academic Success Plan during their first semester of academic probation. Students are required to meet with their academic advisor to discuss the completed Academic Success Plan before they will be allowed to register for the subsequent term. Academic probation requires that students achieve a minimum 2.3 semester GPA each subsequent term until their cumulative CU GPA is at least a 2.0 to return to good academic standing. Students who fail to earn the 2.3 semester GPA during any semester while on academic probation will be placed on restricted academic probation. Students have five semesters or 30 credits (whichever happens sooner) to raise their cumulative GPA to above a 2.0, or they will be placed on academic suspension. Suspended students may not attend any campus of the University of Colorado or any division of the university (including continuing education or extended studies credit classes). Once a student has raised his/her cumulative CU GPA to at least a 2.0, they will be removed from academic probation. Combined degree students are required to maintain the same standards of performance as Business School students in order to be continued in a combined program.

Restricted Academic Probation overall CU GPA

Students who fail to earn the 2.3 semester GPA during any semester while on academic probation will be placed on restricted probation. Students are informed in writing (via University assigned email and postal letter of their restricted academic probation status. Students on restricted academic probation will be allowed to enroll for a maximum of 6 credits

or 2 courses per semester. Students on restricted academic probation will be required to schedule an appointment and meet with their academic advisor to register for any course. Students on restricted academic probation will not be able to register online, they will need to register for courses using a Schedule Adjustment Form which will be processed by the Business School. Restricted Academic Probation requires that students achieve a minimum 2.3 semester GPA each subsequent term until their cumulative CU GPA is at least a 2.0 to return to good academic standing. Students must achieve a minimum 2.0 cumulative CU GPA to meet graduation requirements. Students on restricted academic probation who do not meet the minimum 2.3 semester GPA will be placed on academic suspension. Once a student has raised his/her cumulative CU GPA to at least a 2.0, they will be removed from academic probation. Students on suspension may petition for readmission to the school after waiting a minimum of one year from the term in which they were suspended. Generally, petitions are granted only in unusual circumstances. Any suspended student re-admitted to the school will be under contract and placed on restricted academic probation status until the GPA deficiency has been cleared. Such students will be automatically suspended if, at any time, their overall GPA or business GPA again falls below 2.0.

ACADEMIC SUSPENSION overall CU GPA

Students on restricted academic probation who do not meet the 2.3 minimum semester GPA will be placed on academic suspension. Students will be notified by certified mail of their academic suspension status. Students on suspension may petition for readmission to the school after waiting a minimum of one year from the term in which they were suspended. Generally, petitions are granted only in unusual circumstances. Any suspended student re-admitted to the school will be under contract and placed on restricted academic probation status until the GPA deficiency has been cleared. Such students will be automatically suspended if, at any time, their overall GPA or business GPA again falls below 2.0. A student's academic suspension status is permanently indicated on their official University of Colorado transcript.

Academic Probation overall BUSINESS GPA

Students are informed in writing (via University assigned email and postal letter of their academic probation status. Students on academic Business probation will be required to meet with their advisor during their first semester of Business academic probation. Students are required to meet with their academic advisor before they will be allowed to register for the subsequent term. Business Academic probation requires that students achieve a minimum 2.5 semester GPA each subsequent term until their Business course GPA is at least a 2.0 to return to good academic standing. Students who fail to earn the 2.5 semester GPA during any semester while on Business academic probation will be placed on restricted business academic probation. Students have five semesters or 30 credits (whichever happens sooner) to raise their Business course GPA to above a 2.0, or they will be placed on Business academic suspension. Suspended students may not attend any campus of the University of Colorado or any division of the university (including continuing education or extended studies credit classes). Once a student has raised his/her Business course GPA to at least a 2.0, they will be removed from business academic probation. Combined degree students are required to

maintain the same standards of performance as Business School students in order to be continued in a combined program.

Restricted Business Academic Probation

Students who fail to earn the 2.5 semester GPA during any semester while on business academic probation will be placed on business coursework restricted probation. Students are informed in writing (via University assigned e-mail and postal letter of their restricted business academic probation status. Students on restricted business academic probation will be allowed to enroll for a maximum of 12 credits or 4 courses per semester. Students on restricted business academic probation will be required to schedule an appointment and meet with their academic advisor to register for any course. Students on restricted business academic probation will not be able to register online, they will need to register for courses using a Schedule Adjustment Form which will be processed by the Business School. Restricted business Academic Probation requires that students achieve a minimum 2.5 semester GPA each subsequent term until their cumulative business coursework GPA is at least a 2.0 to return to good academic standing. Students must achieve a minimum 2.0 cumulative business GPA to meet graduation requirements. Students on restricted business academic probation who do not meet the minimum 2.5 semester GPA will be placed on business academic suspension. Once a student has raised his/her cumulative business coursework GPA to at least a 2.0, they will be removed from restricted business probation.

ACADEMIC SUSPENSION overall BUSINESS COURSEWORK GPA

Students on restricted academic probation who do not meet the 2.5 minimum semester GPA will be placed on academic suspension. Students will be notified by certified mail of their business academic suspension status. Students on suspension may petition for readmission to the school after waiting a minimum of one year from the term in which they were suspended. Generally, petitions are granted only in unusual circumstances. Any suspended student re-admitted to the school will be under contract and placed on restricted academic probation status until the GPA deficiency has been cleared. Such students will be automatically suspended if, at any time, their overall GPA or business GPA again falls below 2.0. A student's business academic suspension status is permanently indicated on their official University of Colorado transcript.

Students earning all failing grades for a semester will have a dean's stop placed on their record and will not be permitted to register without a business advisor's approval.

Undergraduate Areas of Emphasis

Business students must choose an area of emphasis and complete the requirements for the area. The area of emphasis provides specialization beyond the general background that is provided by the undergraduate core and the business core, both of which are required to be fulfilled prior to completing the area of emphasis courses. Areas of emphasis within the BS in business administration program include:

- [Accounting](#) (financial, managerial, accounting/information systems)
- [Finance](#)

- [Financial Management](#)
- [Human Resources Management](#)
- [Information Systems](#)
- [International Business](#)
- [Management](#) (management/information systems)
- [Marketing](#) (marketing/information systems)
- Sports Management [Inactive]

Graduate Business Programs (MBA/MS/PhD)

Associate Dean: Clifford E. Young

Assistant Dean: Linda J. Brooker

Telephone: 303-315-8200

Fax: 303-315-8199

E-mail: grad.business@ucdenver.edu

The Business School offers programs leading to a doctor of philosophy, the master of business administration and the master of science in specific fields of business and health administration. In addition, the master of business administration for executives (executive MBA) is offered as a multi campus program of the University of Colorado business schools, and the executive program in health administration (executive MBA/HA) is offered through the executive health network.

The PhD, MBA, executive MBA, MS and BS degrees in business are accredited by AACSB International, the Association to Advance Collegiate Schools of Business. The health administration MBA and MS degrees are also accredited by the Commission on Accreditation of Healthcare Management Education (CAHME). The accounting programs have earned a separate AACSB International accreditation.

For a list of graduate business programs, see Program Curricula below.

Requirements for Admission to the MBA and MS Programs

Admissions/Advising

Persons contemplating graduate study are encouraged to learn about admission and program requirements by scheduling an appointment with a graduate advisor or attending one of the regularly scheduled prospective student information meetings. Call 303-315-8200 to schedule an appointment.

Admission to the graduate programs in business is granted only to students showing high promise of success in graduate business study. Admission is based on the following indicators of the candidate's likelihood to succeed in the program.

Academic Record

The bachelor's degree must be earned from a regionally accredited university. The total academic record is considered, including the GPA, the course of study, and the quality of the program.

Required Testing

The GMAT or GRE is required for admission consideration for any applicant who does not have a previously awarded master's degree. The GMAT or GRE is administered at numerous centers throughout the world. For information and to register for the test, write to: GMAT/GRE, Educational Testing Service, CN 6103, Princeton, NJ 08541; or phone 1-800-GMATNOW; or visit www.mba.com. The code numbers for CU Denver's graduate business programs are as follows:

MBA: MPB-OG-78
 11-Month MBA: MPB-OG-65
 MS: MPB-OG-75
 PhD: MPB-OG-29

GMAT is required for the 11-Month MBA and preferred for *all* the graduate business programs. Students may petition to have a GRE score reviewed for any of the graduate degree programs, but the decision to accept the GRE is on a case by case basis. If you have not taken either the GMAT or the GRE, we strongly recommend the GMAT. Other graduate admission exams such as the MCAT and LSAT may also be considered, but, some programs will not accept either. See individual program information for specifics. The MS in decision sciences program does not accept the LSAT or MCAT in place of the GMAT or GRE without extensive verifiable evidence of the student's prior mathematical preparation and coursework. For more detailed information, phone the graduate programs office 303-315-8200 or email them at: grad.business@ucdenver.edu.

Work Experience

While we do not require work experience, a record of appropriate employment at increasing levels of responsibility is considered a positive indicator of the likelihood of successful completion of graduate work. A resume must be submitted with the application materials.

Background Requirements

Students applying for graduate programs in business do not need an undergraduate degree in business. The MBA program is specifically designed so that the required courses cover the material needed for completion of the degree. There are no prerequisites needed to start the MBA program. Students with non-business backgrounds have completed the program successfully. Applicants for the MS degrees, however, may be required to take background or common body of knowledge courses, depending on the individual's academic background. For more detailed information, phone the graduate programs office to schedule an appointment with a graduate academic advisor, 303-315-8200 or email them at: grad.advising@ucdenver.edu.

It is expected that students have an adequate level of personal computer proficiency in a word processing and spreadsheet software, as well as a good working knowledge of basic algebra and English grammar.

Letters of Recommendation

Some programs require letters of recommendation while others do not. Please see individual graduate program details for specifics.

The Admission Process

Mailing address for applications:

Graduate Admissions
The Business School
University of Colorado Denver
Campus Box 165, P.O. Box 173364
Denver, CO 80217-3364

Students seeking admission to the 11-Month MBA, MBA with an emphasis in health administration, MS in health administration or executive programs should consult with the relevant catalog sections for additional application criteria or requirements.

Domestic Application Requirements

- Complete parts I and II of the application for graduate admission and the four essay questions.
- Have required GMAT or GRE scores sent directly to the graduate business admissions office from the Educational Testing Service. The code for CU Denver's graduate business programs are as follows:
MBA: MPB-OG-78
11-Month MBA: MPB-OG-65
MS: MPB-OG-75
PhD: MPB-OG-29
- Have two official transcripts (not student copies) mailed directly from each school, college, and university ever attended past high school. Transcripts must be sent even if credit course work completed was not part of a degree program or was taken after an undergraduate degree was earned.
- Resumé
- Enclose a check for \$50 for the MBA, MS or PhD programs, or \$80 for the dual MBA/MS or dual MS/MS, made payable to the University of Colorado. Personal interviews are not required, except for the 11-month MBA and the MBA and MS in health administration. You will be contacted to schedule the interview.

Deadlines. To be considered for admission, applicants for graduate programs must submit all materials prior to the following dates:

Fall— Domestic applications April 15

International applications March 15

Spring—Domestic applications October 15

International applications September 15

Summer—Domestic applications February 15

International applications January 15

The 11-Month MBA option only admits students each fall. The application deadline for the 11-Month MBA is June 15.

Early applications are encouraged because, if admitted, the student receives priority for registration time assignment. Applications received after published deadlines with complete supporting documentation, scores, fees and transcripts will be considered, but, those students may not meet scholarship deadlines. In some cases, course availability is limited for the later applicants.

International Application Requirements

See [Information for International Students](#).

Academic Policies for Graduate Students

Advising

As soon as possible, after being admitted, students should schedule an appointment with a graduate advisor to discuss general degree requirements and determine if any background course work may be required and/or what common body of knowledge courses or prerequisites might be waived for the MS degrees. Call 303-315-8200 to schedule an appointment.

Degree Plan

All students are encouraged to meet with a graduate advisor during their first semester to review their degree plan. Students are also encouraged to meet with a graduate advisor throughout their program to ensure the correct sequencing of courses. In order to ensure that registration runs smoothly, advising hold will be placed on newly admitted students in our MS in accounting, MS in health administration, MBA in health administration and MS in information systems programs. Those student must schedule a time to meet with an advisor prior to registration in their first semester. Call 303.315.8200 to schedule an appointment.

Course Load

The normal course load for full-time graduate students is 9–12 semester hours. However, because many students are also pursuing a career, it is possible to attend classes on a part-time basis by enrolling in 3–6 semester hours. For financial aid purposes, 6 semester hours of graduate study is considered full time during the fall and spring terms and 3 semester hours for the summer term. Graduate courses are scheduled primarily in the evening or online to

accommodate work schedules. Students wishing to take more than 12 credits in one semester must get approval from the assistant dean.

Transfer of Credit

Upon approval of the program director, a maximum of 12 semester hours of graduate business course work may be transferred to the MBA and 9 semester hours for the MS degrees (9 semester hours for each the MBA and MS degree if under a dual program). Note: for the MS in decision sciences only 6 semester hours may be transferred into the program. Courses must have been taken from another AACSB accredited graduate school of business or one of the top 200 universities in the country and courses must have been completed within the last five years with a grade of at least B (not B-). No transfer courses will be accepted if they have been used to satisfy degree requirements of a previously awarded degree. Graduate business courses taken at other University of Colorado Business Schools are considered transfer hours and are included in the transfer limit. Transfer of quarter hours of graduate business credit may satisfy a course requirement, but may not satisfy the total number of hours requirement. One quarter hour equals .667 semester hours.

Transfer to Another Business School Program

Because admission standards *vary* between degree programs, students who wish to transfer from one Business School degree program to a different Business School degree program must meet the admissions standards for the program they wish to apply. There are no automatic transfers between programs and admission into one program does not guarantee admission into another program. Also, graduation from one program does not guarantee admission into another program.

Time Limits

Master's students are required to complete all degree requirements within five years and one semester (seven years and one semester to earn dual MBA/MS or MS/MS degrees, or a PhD). Courses completed outside of these time limits will not be accepted toward the degree without an approved petition. Time-limit extensions are given only for external situations that restrict a student's ability to complete the program in a timely manner. If you do not take graduate business courses for more than three consecutive semesters, you will need to reapply for admission and meet the admission standards in place for the new application term. At the time of re-admission your time limit will also be evaluated and adjusted to meet the limits listed above.

Former Students

Any Denver campus student who has not been enrolled in his or her admitted program of study for three consecutive semesters (summers included) is considered a former student and must reapply for admission to the program by submitting part I of the application for graduate admission, in-state tuition classification form, along with the applicable fee. Readmitted students must conform to degree requirements in effect during the term in which they are readmitted. If the new requirements differ significantly from the former degree plan, a petition may be submitted requesting exceptions.

Graduation

Students must complete the online intent to graduate form on the [Office of the Registrar website](#) when they register for their last semester. Contact the graduate advising office to confirm receipt at grad.advising@ucdenver.edu.

Grade Point Average Requirements

A minimum cumulative graduate business GPA of 3.0 must be achieved and maintained for courses taken toward a graduate business degree. All CU Denver graduate business courses, regardless if the coursework pertains to the current degree and including courses taken as a graduate non-degree seeking business student, are computed in the graduate business GPA. Transfer hours and grades from other institutions and/or from University of Colorado courses taken at the Boulder Campus, Colorado Springs Campus, or the Anschutz Medical Campus, are not computed in the business GPA. However, degree credit may be awarded for those transfer courses through a petition process. If the required cumulative GPA does not meet the minimum requirement of 3.0 or higher when degree requirements have been met, the Business School cannot confer the degree. Note: students may not take extra courses for the sole purpose of improving their cumulative GPA.

Probation and Suspension

If after completing 9 semester hours a student's cumulative graduate business GPA falls below 3.0, the student will be placed on academic probation and given three semesters (one calendar year) or 9 semester hours of graduate business course work (whichever occurs first) in which to achieve the required 3.0 cumulative average. If the student achieves that required cumulative GPA, they are cleared from probation and can continue their studies with us. Failure to achieve the required GPA within the allotted time period may result in suspension for one year. Suspended students may not attend any campus of the University of Colorado including continuing education/extended studies. Students on suspension may petition for readmission to the school after waiting a minimum of one year from the term in which they were suspended. Any suspended student readmitted to the school will be placed on continued probation status to monitor required progress. To be considered for readmission, a petition form plus a new graduate application part I and in-state tuition classification form must be submitted along with the appropriate fee. Generally, petitions are granted only on rare occasions. Re-admitted students must meet any new admission requirements that may be in place. In addition, if a student cannot mathematically achieve the required 3.0 cumulative GPA with the remaining required courses, the petition to return will not be approved. Students may not take additional courses for the sole purpose of increasing their cumulative GPA.

Passing Grades

Any grade below a C (2.0) is a failing grade for graduate students (C is passing; C-, D+, D, D- and F are failing). Graduate students must repeat a required course for which they have received a grade below a C. Both the original grade and the grade for the repeated course count in the computation of the business GPA. If a grade lower than a C is earned in an elective course, the student may repeat that course or select another course. NOTE: C is passing, C-, D+, D, D- and F are failing.

Repeating Graduate Business Courses

A failed course (any grade below a *C* such as *C-*, *D+*, *D*, *D-* or *F*) must be repeated if it is a required course. Both the original and the repeated grade will remain on the student's transcript and both grades will be calculated into the student's cumulative GPA. A course in which a grade of *C* or better is obtained may not be repeated. Graduate business courses repeated without approval may not be used in the graduate business GPA calculation.

Drop/Withdrawal

Classes dropped prior to census date will not appear on the transcript. Thereafter, to drop after census date, with a grade of *W*, a student must be earning a grade of *C* or better; otherwise, an *F* will appear on the transcript. Students will not be permitted to drop a course or withdraw from all courses after the 10th week of the semester, unless circumstances outside the student's control are documented. The late request to drop or withdraw must be approved by the assistant dean and the course instructor(s).

Registration for Graduate Business Courses

Students admitted to graduate business degree programs have priority for graduate business course registration. Nondegree students and graduate students from other University of Colorado schools or colleges may be permitted to attend on a space-available basis by meeting the qualifications and submitting a [nondegree application form](#). Some graduate-level (6000-level) courses may be offered simultaneously with undergraduate 4000-level courses. However most 6000-level courses are reserved exclusively for graduate business students.

Master of Business Administration Programs

The master of business administration (MBA) program provides a general background in management and administration. This background enables the student to have the breadth of exposure and depth of knowledge required for an advanced-level management career. The program is devoted to developing the concepts, analytical tools and communication skills required for competent and responsible administration of an enterprise viewed in its entirety, within its social, political and economic environment.

The professional MBA program allows the scheduling of classes with maximum flexibility so students can progress through the program at their own pace, by taking as little as one class per semester or as many as five classes per semester, at times that are convenient to their work schedule. The program can be completed in as little as 16 months or as long as five years plus one semester.

Online courses add additional flexibility. Students may complete all degree requirements online, or combine online and campus courses to broaden the choice of electives or to fit a business travel schedule or personal learning style. All the core courses are offered online in the fall and spring terms. Your choice of online electives is limited.

The MBA program is also available in different configurations: 11-Month (full time, see relevant section), health administration and the executive MBA (see relevant section). All MBAs have the same curriculum requirements; they differ only in their focus, the choice of electives, the

flexibility of course scheduling and the time required to complete the program. The 11-Month and executive MBAs are lockstep programs (no open electives, no specialized tracks), where all the students complete all program requirements together. No course transfers, waivers or substitutions are permitted in the lockstep programs.

For a list of MBA programs, see Program Curricula below.

Master of Science Programs

Master of science degrees (MS) are offered in the fields of accounting, decision sciences, finance, global energy management, health administration, information systems, international business, management and marketing.

The MS degree affords the opportunity for specialization and depth of training within a particular field. The specialization and expertise developed within the MS program prepares the student for more specialized staff positions in industry, the nonprofit sector and government.

The course requirements for the MS degree in each of the fields are divided into two components—common body of knowledge (CBK) and graduate core and elective requirements. The CBK requires business courses to develop general breadth and competence in the fields of business administration. These requirements differ among MS degree programs. Some CBK requirements may be waived if evidence of equivalent undergraduate or graduate-level coursework is shown and the course work is less than 10 years old. An undergraduate degree in business administration earned from an AACSB or regionally accredited university will meet most of the CBK requirements. The graduate core and electives requires at least 30 semester hours of graduate-level courses. BUSN courses lower than 6800 may not be used as free electives in the MS programs. Contact a graduate staff advisor for any exceptions.

No comprehensive exams are required.

For a list of graduate MS programs, see Program Curricula below.

Dual Degree Programs

Dual degree program options within the Business School include:

- [MBA/MS](#)
- [MS/MS](#)
- [MBA/MIM](#)
- [MBA/MD](#)
- [MBA/MURP \(Urban and Regional Planning\)](#)
- MBA/Political Science

Please be aware that admission into one of our programs does not guarantee admission into another program. If adding a dual, you must meet the admission requirements for both programs. All programs have their own unique admissions requirements. Graduation from one program does not guarantee admission into another program.

PhD CSIS Program

Program co-directors: Gita Alaghband and Mike Mannino

Telephone: 303-556-4314 (Alaghband), 303-315-8427 (Mannino)

The computer science and engineering (CSE) department in the College of Engineering and Applied Science and the Business School offer a joint doctor of philosophy degree program in computer science and information systems (CSIS). The program targets students who have a master's-level education in computer science, information systems, or related disciplines although highly qualified students with undergraduate degrees may also apply. The program provides research training combining computer science and information systems along with strong industry interaction. Students completing the joint PhD program may qualify for academic positions, industrial research positions and senior consulting positions. The specific goals of the program complement these general goals:

- create a pool of graduates with CSIS research training who are qualified for academic and non-academic careers
- meet student demand for advanced training in CSIS with accommodations for full-time and part-time students
- promote interdisciplinary research between the computer science and engineering department and the Business School
- enhance technology transfer between CSIS academic units and front range technology businesses through joint research, student internships, faculty externships and committee participation

Admission

Prospective students apply to either the Department of Computer Science and Engineering or the Business School. Applicants who pass the initial screening are reviewed by a joint committee consisting of the two co-directors of the program for the final admittance decision.

Admission criteria include GPA (undergraduate and graduate), standardized test scores (GMAT or GRE), letters of recommendation, prior achievements in academia and industry and the application portfolio essay describing an applicant's motivation and an initial plan for doctoral study. The application portfolio is important to gauge an applicant's motivation for research training.

Because of the program's goals, preference is given to students with a master's degree in either computer science or information systems. Students without a master's degree in either area will need to take additional course work depending on the student's background.

Program Organization

Supervision of the PhD Program

The PhD program is supervised by co-directors from the Business School and the CSE department. The duties of the co-directors include scheduling of doctoral courses, setting program policies subject to approval of the Business School and the CSE faculty, working with advisors and doctoral committee chairs to ensure compliance with the program guidelines,

resolving disputes, measuring performance of the program over time and providing the final decision on admittance of students.

Advisor

Upon entering the program, each student chooses an advisor who will provide mentoring and guidance in the course of the entire program. The advisor will work with the student to prepare a program of study in the course work part of the program. The advisor will also work with the student in the preparation of the first- and second-year papers. Requests to change the advisor must be approved by the co-directors of the PhD program.

Dissertation Committee

The advisor and four other members form a dissertation committee. To foster interdisciplinary work, you may have your dissertation research co-advised by two faculty members. At least one co-advisor must be a full-time current graduate faculty member in the CSE department or the Business School. The committee must contain at least one faculty member from the CSE department and at least one from the Business School. At least one committee member is from outside of the CSE department and the information systems faculty.

Executive Programs

Executive MBA

Faculty and Resources

The faculty are senior faculty of the Business Schools from three of the university's campuses. The [executive MBA program](#) is offered jointly by the Graduate Schools of Business Administration in Boulder and Colorado Springs and the Business School in Denver. Faculty are nationally recognized, and all possess both practical managerial experience and a demonstrated ability to work effectively with executive-level students.

Admission Requirements

The executive MBA program is designed for men and women who have eight to 10 years experience in a decision-making position. In the selection process, significant attention will be given to the depth and breadth of the candidate's experience, progression in job responsibility, total work experience and the ability to benefit from this integrative classroom/work environment. The admissions committee will base its decision on the application, former academic record, relevant test scores, the employer's nominating letter, other letters of recommendation and a personal interview.

For application and additional information, write to:

Executive MBA Program
University of Colorado Denver
P.O. Box 480006
Denver, CO 80248-0006

Executive MBA in Health Administration

Program Manager: Pete Taffe

Telephone: 303-623-1888 or 1-800-228-5778

Program Sponsors

The [executive program in health administration](#) is a cooperative program of CU Denver and the Network for Healthcare Management.

The University of Colorado Denver serves as the degree-granting institution for the executive program. The graduate program in health administration is located in the Business School.

The Network for Healthcare Management is an educational consortium representing healthcare executives and academic faculty from major health administration graduate programs in the United States and Canada, including Arizona State University, Northwestern University, Ohio State University, San Diego State University, the University of California at Berkeley, the University of California at Los Angeles, the University of Colorado Denver, the University of Michigan, the University of Missouri, the University of North Carolina, the University of Southern California, the University of Toronto, the University of Washington and Virginia Commonwealth University.

Extend your education

Whether you are looking to advance in your current field or prepare for an entirely new career, the Business School offers opportunities to suit your goals.

A variety of classes and programs are available to community members and alumni. Classes are taught by expert faculty or influential members of the Denver business community, imparting knowledge that is readily applicable in the field.

Entrepreneurship

The Bard Center for Entrepreneurship offers programs for those looking to start a new venture or enhance their entrepreneurial skills.

Certificate Specialization Programs

Modern career paths are flexible, so it's beneficial to have a flexible degree. If you already have a graduate business degree from an AACSB accredited school, the CU Denver Business School allows you to add a specialization through our post-graduate certificates.

Program Curricula (see Programs chapter for more detail)

Bachelor of Science in Business Administration

Accounting Emphasis BS in Business Administration

Business Administration Core Requirements BS

Finance Emphasis - BS in Business Administration

Financial Management and Information Systems Emphasis—BS in Business Administration

Financial Management Emphasis—BS in Business Administration

Human Resources Management Emphasis—BS in Business Administration

Information Systems Emphasis—BS in Business Administration

International Business Emphasis—BS in Business Administration

Management Emphasis—BS in Business Administration

Marketing Emphasis—BS in Business Administration

Non Degree

Business Administration Minor

Risk Management and Insurance Minor

Master of Business Administration

Business Administration -- Health Administration MBA

Business Administration MBA

Business Administration: 11-Month MBA

Executive MBA in Health Administration

Master in Business Administration for Executives, MBA

Master of Business Administration/Master of Science

Business Administration/Business MBA/MS

Master of Business Administration/Master of Global Management

Business Administration/Global Management MBA/MGM

Master of Business Administration/Doctor of Medicine

Business Administration/Medicine MBA/MD

Master of Business Administration/Master of Urban and Regional Planning

Business Administration/Urban and Regional Planning MBA/MURP

Master of Science

Accounting MS

Decision Sciences MS

Finance and Risk Management MS

Global Energy Management MS

Health Administration MS

Information Systems MS

International Business MS

Management and Organization MS

Marketing MS

Master of Science/Master of Arts

Finance/Economics MS/MA

Master of Science/Master of Science

Business/Business MS/MS

Doctor of Philosophy

Computer Science and Information Systems PhD (Business School)

School of Education & Human Development

Dean

Rebecca Kantor

Associate Deans

Honorine Nocon

Assistant Dean

Christine Feagins

Contact

Admissions

Student Services Center
1380 Lawrence Street Center, Suite 701
303-315-6300

education@ucdenver.edu

www.ucdenver.edu/academics/colleges/SchoolOfEducation/Pages/Home.aspx

Mailing Address

School of Education & Human Development
P.O. Box 173364, Campus Box 106
Denver, CO 80217-3364

Application Deadlines

Vary by program. Visit

www.ucdenver.edu/academics/colleges/SchoolOfEducation/Apply/Pages/ApplyNow.aspx

Overview

The School of Education & Human Development prepares and inspires education and mental health leaders to have a profound impact in fostering student opportunity, achievement and success in urban and diverse communities. Areas of study include programs for new teachers, experienced teachers, school administrators, counselors, school psychologists, school librarians as well as technology and research professionals.

Mission

We prepare and inspire education and mental health leaders to have a profound impact in fostering student opportunity, achievement and success in urban and diverse communities.

Our Role in the Community

At the school, we're affecting the future. We attract a large proportion of mid-career students armed with broad experiences and perspectives, who go on to infuse Colorado's classrooms and mental health organizations with diversity and wisdom.

Professionals as Students

Our program and class schedules offer flexibility to meet the needs of professionals who balance graduate education with the demands of work, families and other interests.

Accreditation

The School of Education & Human Development is fully accredited by the Colorado Department of Education (CDE), the Council for the Accreditation of Educator Preparation (CAEP) and the Council for Accreditation of Counseling and Related Education Programs (CACREP) in Agency Counseling, School Counseling and Marriage and Family Therapy, and the National Association of School Psychologists (NASP) in School Psychology.

Programs Leading to Degrees and Licenses

The School of Education & Human Development offers two doctoral programs, two educational specialist degrees, master's degrees in seven program areas as well as undergraduate degrees with teacher licensure through the College of Liberal Arts and Sciences. Students in these degree programs may pursue a variety of state licenses for teaching and school administration or may elect to earn these licenses without pursuing a graduate degree.

The school's degree programs and the associated state licenses are listed in the following table that also provides contact information. The school's urban community teacher education program prepares elementary and secondary teachers for a variety of school settings through academic work, professional studies, classroom teaching experiences and community field experiences.

School of Education and Human Development Degree Programs and Associated State Licenses

Admissions

Prospective degree candidates (master's, educational specialist and doctoral) should request application materials from the School of Education & Human Development Student Services Center located in the Lawrence Street Center, Suite 701, by telephone at 303-315-6300 or by e-mail to education@ucdenver.edu. Information about all degrees, programs and admission requirements can be found on the school's website at <http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Pages/Home.aspx>.

Continuing Professional Education

In cooperation with schools and other community agencies, the school's continuing education program offers a variety of graduate workshops, courses and academies. While these are designed to meet specific education and training needs of partner organizations, many of the continuing professional education programs articulate with the school's regular master's degree programs. For more information, please call 303-315-4920.

Centers and Cooperatives

For information about centers and cooperatives in the School of Education & Human Development, visit

<http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Pages/Home.aspx> and click on Centers.

- Center for Transforming Learning and Teaching (CTLT)
- Colorado Principal's Center
- Culturally Responsive Urban Education (CRUE)
- Evaluation Center
- Experiential Science Learning and Research Collaborative
- Front Range Board of Cooperative Education Services for Teacher Leadership (BOCES)
- Laboratory for Educational Assessment Research and Innovation (LEARN)
- Paraeducator Resource and Research Center (PAR²A)

Positive Early Learning Experiences Center (PELE)
Professional Development in Autism Center (PDA)

Departments and Programs

Programs

Master of Science

- [Mathematics Education Master of Science in Education MSED](#)

Comparison of Programs Offered

- [SEHD Degree Programs and Associated State Licenses](#)

Urban Community Teacher Education Program

Programs

License

- [Elementary/Secondary Education Licensure](#)
- [Special Education](#)
- [Undergraduate Teacher Licensure](#)

Master of Arts

- [Special Education MA](#)

Counseling

Programs

Master of Arts

- [Counseling MA](#)

School Psychology

Programs

Education Specialist

- [School Psychology EdS/Licensure](#)

Curriculum and Instruction

Programs

Master of Arts

- [Curriculum and Instruction MA](#)

Information and Learning Technologies

Programs

Certificate

- [Designing E-learning Environments Graduate Certificate](#)
- [Digital Storytelling Graduate Certificate](#)

Endorsement

- [Instructional Technology Endorsement](#)
- [School Library Endorsement](#)

Master of Arts

- [Information and Learning Technologies MA](#)
- [School Library and Instructional Leadership MA](#)

Linguistically Diverse Education

Programs

Certificate

- [Culturally Responsive Urban Education \(CRUE\) Graduate Certificate](#)
- [Teaching English to Speakers of Other Languages \(TESOL\) Graduate Certificate](#)
- [Teaching for Cultural and Linguistic Diversity \(TCLD\) Certificate](#)

Endorsement

- [Linguistically Diverse Education Endorsement](#)

Master of Arts

- [Linguistically Diverse Education, MA Curriculum and Instruction](#)

Literacy, Language and Culturally Responsive Teaching

Programs

Certificate

- [Early and Adolescent Literacy Certificates](#)

Endorsement

- [Reading Teaching Endorsement](#)

Master of Arts

- [Reading and Writing Option, MA Curriculum and Instruction](#)
- [Secondary English Education Option, MA Curriculum and Instruction](#)

Administrative Leadership and Policy Studies

Programs

Education Specialist

- [Administrative Leadership and Policy Studies EdS](#)

License

- [Administrator License - Executive Leadership Program](#)
- [Principal Licensure](#)

Master of Arts

- [Administrative Leadership and Policy Studies MA](#)

Early Childhood Education

Programs

Endorsement

- [Early Childhood Special Education Specialist Endorsement](#)

License

- [Early Childhood Special Education Specialist Licensure](#)

Master of Arts

- [Early Childhood Education MA](#)

Educational Psychology

Programs

Master of Arts

- [Educational Psychology MA](#)

Doctoral Studies in Education

Programs

Doctor of Philosophy

- [Educational Studies and Research PhD](#)

Doctor of Education

- [Leadership for Educational Equity EdD](#)

College of Engineering and Applied Science

[Complete course list for the College of Engineering and Applied Science](#)

Dean Marc Ingber

Associate Dean for Research Ken Ortega

Associate Dean for Student Affairs Bruce Janson

Assistant Dean Brian Brady

Contact

Office

North Classroom, 3024
1200 Larimer Street, 3rd Floor
Telephone: 303-556-2870
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engineering@ucdenver.edu

Mailing Address

College of Engineering and Applied Science
Campus Box 104

P.O. Box 173364
Denver, CO 80217-3364

Website

<http://www.ucdenver.edu/academics/colleges/Engineering/Pages/EngineeringAppliedScience.aspx>

Application Deadlines

Undergraduate

Fall—August 1

Spring—December 1

Summer—May 1

Graduate Programs

Bioengineering

Fall: master's—March 15

doctoral—February 15

Civil Engineering

Domestic

Fall: master's—June 15

doctoral—May 15

Spring: master's—November 1

doctoral—October 1

Summer: master's—February 15

doctoral—January 15

International

Fall: master's—May 15

doctoral—April 15

Spring: master's—October 1

doctoral—September 1

Summer: master's—January 15

doctoral—December 15

Computer Science and Engineering

Rolling Admissions

Electrical Engineering

Rolling Admissions

Mechanical Engineering

Fall—April 1

Spring—October 1

Overview

The College of Engineering and Applied Science at the University of Colorado Denver meets the needs of the Denver metropolitan area by providing nationally accredited engineering education programs in a flexible format that suits both students and employers. Recognizing the importance for students to pursue professional studies and related employment simultaneously, the college offers undergraduate and graduate degree programs in bioengineering, civil engineering, mechanical engineering, electrical engineering and computer science and engineering through evening studies or through a more traditional schedule of day classes. As a practicing engineer, you can improve and update your professional capabilities and earn a graduate degree. Or, through our interdisciplinary master of engineering degree, you can obtain graduate education in management, computer science, behavioral science or other areas together with new engineering skills in your field. We participate in an interdisciplinary master of science in environmental science, and the college offers a unique interdisciplinary doctoral degree in engineering and applied science.

A listing of the fields in which engineers work would have hundreds of entries. The following list is a brief summary of the engineering fields available at CU Denver.

Bioengineering offers opportunities for interdisciplinary undergraduate training for a bachelor of science degree and graduate training for master of science and doctor of philosophy degrees. Our programs are uniquely integrated with the CU Anschutz Medical Campus. Students enjoy opportunities to learn from clinicians and engineers and to perform research or medical device design in world-class hospitals and clinical research labs. Bioengineering is one of the fastest growing job markets this decade. A degree in this area provides numerous opportunities to work in health care, biomedical industry, government regulatory agencies and academia.

Civil engineering offers an interesting and challenging career in the design and construction of buildings, bridges, dams, aqueducts and other structures; in transportation systems including highways, canals, pipelines, airports, rapid transit lines, railroads and harbor facilities; in the distribution of water and the regulation of rivers; in the development of water resources for urban use, industry and land reclamation; in the control of water quality through water purification and proper waste treatment; in the construction and contracting industry; and in the problems concerned with our physical environment and the growth of cities.

Computer science and engineering offers graduates the solid foundation needed for jobs in computing and information technologies. Career paths in computer science involve designing and implementing software, devising new applications of computers and developing effective ways to solve computing problems. Computer engineers design and develop computer hardware and supervise its manufacture and installation.

Electrical engineering offers professional careers that include research in development of new electrical or electronic devices, instruments or products; design of equipment or systems; production and quality control of electrical products; and sales or management for private industry or government. There are numerous specialties within electrical engineering. Among them are the design and application of computer systems and digital engineering; electromagnetic fields and microwave devices; control systems; communication theory and signal processing; electrical integrated circuits and electron devices; and energy and power systems.

Mechanical engineering offers a wide range of interesting and challenging career opportunities in research, design, development, manufacturing, testing and marketing for either private industry or government. Mechanical engineers help develop a wide range of products such as engines, transmissions, compressors, pumps, computer disk drives, oil field drilling rigs, missiles, space satellites, earth-moving equipment, container-manufacturing machines, medical equipment and many other products encountered in daily life.

College of Engineering and Applied Science Educational Goals

The College of Engineering and Applied Science has established the following goals and objectives for undergraduate education:

- successful completion of the fundamental core courses, primarily lower division, in mathematics and the physical sciences
- successful completion of the required upper-division courses in engineering science, analysis and design
- successful completion of real-world engineering design projects that require integration of engineering, economic and social skills
- successful completion of a series of humanities and social science courses that introduce the student to societal problems and historical perspectives
- evidence, through close student/faculty contact, of development of professionalism, ethics and concern for the multifaceted human element of engineering
- evidence, from successful completion of a full engineering curriculum, of the ability to maintain professional competency through lifelong learning
- evidence, through successful completion of a series of communications oriented courses and project presentations, of an ability to communicate effectively with professionals and lay persons alike

Accreditation

The undergraduate degree programs in civil, computer science and engineering, electrical and mechanical engineering programs are accredited by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET). The undergraduate degree program in bioengineering will apply for accreditation as soon as it is eligible.

Availability of Degree Programs

CU Denver will accept for matriculation only those prospective engineering students who designate a degree program awarded by the CU Denver College of Engineering and Applied Science. Students desiring degree programs other than those named above must apply to the

campus awarding the degree. In some cases, the university campus accepting the student may grant permission to take courses on another University of Colorado campus, subject to enrollment limitations. In such cases, the engineering department of the admitting campus will counsel the student in the preparation of course schedules.

Nondegree Students

Nondegree students may apply 12 semester hours of course work (or up to 18 if taken in one semester) toward a bachelor's degree in engineering from CU Denver. Nondegree graduate students may apply 9 semester hours of graduate-level course work toward a master's degree in engineering from CU Denver.

Summer Courses

Summer session courses are offered for regular students and those who have course deficiencies. Courses are also offered for high school graduates who wish to enter as freshmen and need some additional preparatory work. For some students, there are advantages in starting their college careers during the summer session. Some required freshman and sophomore courses and many elective courses are offered at CU Denver during the summer. The summer session gives students a head start and enables them to take a lighter load during the fall semester or take additional courses to enrich their programs.

Computing

The College of Engineering and Applied Science encourages all students to develop their skills in using the computer as a tool, not only for solving technical problems but for use in all other facets of their careers. Students are encouraged to explore computer courses other than the fundamental programming course required in their curriculum.

Internships

Internships are a way for students to gain professional experience while studying at CU Denver. Many internship positions lead to permanent employment opportunities upon graduation. Please see the "Career Center" section of the [Campus Life](#) chapter in this catalog or contact the Career Center at 303-556-2250 for information on the specific eligibility requirements.

Scholarships

The college receives an annual allocation of state funds for Dean's Scholarships; these funds are awarded to students who apply and meet scholarship and community service criteria. Additional funds for scholarships and loans are obtained through contributions from alumni and friends. Enrollment in the College of Engineering and Applied Science makes the student eligible for these scholarships. Scholarship application forms are available online through the [CU Denver Scholarship Resource Office](#). Students must apply by April 1 for scholarships beginning in the upcoming academic year. Students can apply for all industry scholarships and Dean's Scholarships using the general application form. Scholarship application forms require information about the applicant's participation in school related activities, community activities and work. Dean's Scholarship applicants must qualify for in-state tuition and have at least a 3.0 GPA, but do not need to show unmet financial need.

For additional information on other types of financial aid, consult the [Tuition, Fees and Financial Aid](#) chapter of this catalog.

Research Centers

Transportation Research Center

Director: Bruce Janson

Telephone: 303-556-2831

The Transportation Research Center (TRC) involves both students and faculty on the Denver campus in a range of education and research activities. The TRC works on projects in collaboration with other departments and colleges such as business, urban planning and public affairs. TRC projects address local, state, national and international concerns with funding from federal, state, local or private sources.

Some focuses of the Transportation Research Center are transportation modeling; traffic monitoring technologies and data analysis techniques; transportation planning and travel demand forecasting for both person and freight movements; traffic engineering and control; facility design and management; sustainable transportation systems; safety studies; use of geographic information systems in transportation; environmental impact assessment; transportation investment decision analysis, including cost-benefit and life-cycle analyses and cross-subsidization issues; and accident studies. Several studies on advanced system development involve partnerships with Colorado's high-tech industry.

Center for Geotechnical Engineering Science

Director: Nien-Yin Chang

Associate Director: Brian Brady

Telephone: 303-556-2362

The Center for Geotechnical Engineering Science aims to advance the understanding of the safety, reliability, performance and environmental impact of engineered geotechnical structures. Resolutions of geotechnical and geoenvironmental remediation problems are addressed through research sponsored by public funding agencies and private industry. The center seeks the opportunity for cooperative research with other institutions. Research interests include soil-structure interaction (SSI) effects on the response of structures under strong seismic shakings (high rises, bridges, retaining walls, deep foundations and other infrastructures); load and resistance factors designs (LRFD) of deep foundations; seismic responses of mechanically stabilized earth (MSE) structures; and expansive soils foundation designs.

The Center can provide technical expertise pertaining to expansive soil investigation, foundation designs, forensic investigation and rehabilitation of damaged structures. With billions of dollars lost due to expansive soil damage to structures, much is desired in formulating prediction mechanisms for expansive soil behaviors and design procedures for the mitigation of severe damage and technology for the rehabilitation of the damaged structures. Severe expansive soil problems have led to a Center research effort aimed at a better understanding of expansive soil

mechanics, foundation performance and forensic investigation of the damage to structures (buildings, highways, airport taxiway and runway). The Center promotes technology transfer through engineering education and public forums.

Center for Sustainable Infrastructure Systems

Director: Z. Jason Ren

Telephone: 303-556-5287

Website:

<http://www.ucdenver.edu/academics/colleges/Engineering/research/CenterSustainableUrbanInfrastructure/Pages/CSIS.aspx>

The Center for Sustainable Infrastructure Systems (CSIS) is an interdisciplinary research center between the College of Engineering and Applied Science and the School of Public Affairs, bringing together engineers with professionals from science, public policy and health and business development for the advancement, rapid diffusion, review and redesign of resilient and sustainable infrastructure systems in society. There are four unique aspects of CSIS sustainable infrastructures research:

- Systems Approach—integrating research across various infrastructures and/or sectors, with efficiency benchmarks in each sector to aid in scenario modeling and quantitative goal setting.
- Multi-objective—taking into consideration infrastructure performance and its impact on people, prosperity and the planet
- Outcomes and metrics driven
- Considers people and processes—understanding the policy process and engaging with communities and institutions

In addition to conducting research, CSIS provides educational programs (curriculum, professional development and outreach); conducts outreach for development of sustainable infrastructure projects and activities; and develops and disseminates a body of knowledge related to CSIS.

Continuing Engineering Education Program

Program Manager: Heidi Utt

Telephone: 303-556-4907

Website:

<http://www.ucdenver.edu/academics/colleges/Engineering/discover/ContinuingEngineeringEducationProgram/Pages/CEEP.aspx>

Continuing Engineering Education Program (CEEP) courses are offered at convenient times and locations, are taught by academic and industry professionals, and are responsive to changing technologies. By addressing topics for both engineers and non-engineers, the curriculum supplies the knowledge, skills, and competitive edge required in many professional fields. Moreover, CEEP students finish with ready-to-apply expertise. Program disciplines encompass civil, electrical, mechanical, environmental, systems, information technology, project management and more, with a focus on key industry certifications, such as the FE, PE, CAPM,

PMP, CCENT, CCNA, SCJP and others. Most CEEP offerings are non-credit Continuing Education Unit earning courses, although some courses are available for graduate credit.

General Requirements for Undergraduate Admission

The student must meet the admission requirements described in the [Information for Undergraduate Students](#) and [Information for Graduate Students](#) chapters of this catalog and of the College of Engineering and Applied Science in which the degree program selected by the student is offered.

Beginning undergraduate students in engineering should be prepared to start analytic geometry-calculus. No credit toward any degree in engineering will be given for algebra, trigonometry or precalculus mathematics (MATH 1110, 1120 and 1130). (These courses are offered to allow students to prepare for calculus if needed.) Students who question the adequacy of their precollege background in mathematics should contact the [Department of Mathematics](#) office in the College of Liberal Arts and Sciences. Placement tests covering precalculus mathematics are required of new freshmen to select the appropriate beginning mathematics course.

To be prepared for the type of mathematics courses that will be taught, the student must be competent in the basic ideas and skills of ordinary algebra, geometry and plane trigonometry. These include such topics as the fundamental operations with algebraic expressions, exponents and radicals, fractions, simple factoring, solution of linear and quadratic equations, graphical representation, simple systems of equations, complex numbers, the binomial theorem, arithmetic and geometric progressions, logarithms, the trigonometric functions and their use in triangle solving and simple applications, and the standard theorems of geometry, including some solid geometry. It usually takes eight semesters to cover this material adequately in high school.

Refer to the “Minimum Academic Preparation Standards (MAPS)” and “Admission Requirements for Freshmen” sections in the [Information for Undergraduate Students](#) chapter of this catalog for a list of high school subjects required for admission to the College of Engineering and Applied Science.

Former Students

Former students must meet the readmission requirements outlined in the [Information for Undergraduate Students](#) and [Information for Graduate Students](#) chapters of this catalog. Students who interrupt their degree program for more than one academic year will be required to follow the degree program in effect at the time of their readmission to the college. Repetition of course work may be necessary because of the interruption; readmitted applicants will be evaluated on an individual basis. Repeated courses must be taken for no credit. See the “Repetition of Courses” policy under “Academic Policies” in this chapter of the catalog.

Intercampus Transfer

Transfers between campuses of the University of Colorado should be carefully planned to avoid loss of academic credit. Courses and credits required for engineering degrees vary from campus to campus; therefore, students should plan as far ahead as possible. An advisor can help choose the right courses. Such planning should also include contacting the engineering department to which the student plans to transfer at least one semester before the transfer is planned. The transfer student must have at least a 2.0 GPA for 30 hours of credit toward an engineering degree to be eligible to transfer. A higher GPA may be required to transfer directly into the College of Engineering and Applied Science. In general, calculus, physics and chemistry courses will transfer for full credit. In addition, 12 semester hours of humanities and social sciences electives will usually transfer for full credit. Fundamental computing courses may be unique by campus and should be checked with the campus to which the student is transferring. Any minimum academic preparation standards (MAPS) deficiencies should be eliminated before transferring.

Transfer Agreements

The College of Engineering and Applied Science has formal transfer agreements with all Colorado community colleges, including the following Denver metro-area community colleges:

Arapahoe Community College (Littleton)—303-794-1550
 Community College of Aurora—303-360-4790
 Community College of Denver—303-556-2600
 Front Range Community College (Westminster)—303-466-8811
 Red Rocks Community College (Lakewood)—303-988-6160

Students interested in transferring should contact the engineering department to which they plan to transfer and the respective community college counseling office at the phone number indicated above.

Transfer Students

Students applying for transfer from other accredited collegiate institutions will be considered for admission on an individual basis if they meet the requirements outlined in the [Information for Undergraduate Students](#) chapter of this catalog and have successfully completed a year each of calculus and physics (calculus-based).

Applications to transfer from another college at CU Denver to the College of Engineering and Applied Science will be considered on an individual basis by the Office of the Dean, if the student's prior academic record includes successful completion of a year each of calculus and calculus-based physics and the student's cumulative GPA is 2.75 or higher.

Transfer Credit

Refer to the [Information for Undergraduate Students](#) and [Information for Graduate Students](#) chapters of this catalog for descriptions of universitywide policies on transfer credit.

Nontransferable Credits

Courses on basic subjects such as mathematics or physics may be acceptable for direct transfer of credit if they were taught as part of an accredited program for all students and were not

specifically designated for engineering technology students. Engineering technology courses (courses with technology designations) will not be considered for transfer into an engineering degree program.

Students may seek credit for course work by examination (see “Transfer of College-Level Credit” section of the [Information for Undergraduate Students](#) chapter of this catalog).

Undergraduate Core Curriculum in Engineering

The faculty of the College of Arts & Media, the Business School, the College of Engineering and Applied Science and the College of Liberal Arts and Sciences have established a core curriculum for undergraduate students. Students graduating from the College of Engineering and Applied Science are required to satisfy the humanities and social sciences and writing portions of their engineering program by taking courses from the CU Denver Undergraduate Core Curriculum.

The intent of the humanities and social sciences component of an engineering program is to provide the student with a coherent and well-structured exploration of a substantive issue or theme appropriate to the engineering profession and/or of interest to the student. The required humanities and social sciences electives must include both breadth and depth, must include advanced-level course work and should be planned in consultation with the advisor. A random selection of lower-division courses will not satisfy the humanities and social sciences elective requirement.

Courses such as accounting, contracts, management, elementary foreign languages, public speaking and technical writing are not acceptable as humanities and social sciences electives.

[Details about the CU Denver Undergraduate Core Curriculum](#)

Academic Policies

Refer to the [Information for Undergraduate Students](#) and [University Policies](#) chapters of this catalog for descriptions of universitywide policies. The following policies apply specifically to students in the College of Engineering and Applied Science.

Advanced Placement

Advanced placement (AP) credit may be granted upon receipt of official results from College Board examinations. Minimum score requirements and credit award information can be found in the [Information for Undergraduate Students](#) chapter of this catalog. AP credit may be applied toward graduation if comparable to CU Denver coursework included in the College of Engineering curriculum.

College-Level Examination (CLEP) Credit

Students may earn credit through certain College-Level Examination Program (CLEP) examinations, provided that they score at the 50th percentile or above. CLEP credit may be applied toward graduation if comparable to CU Denver coursework included in the College of Engineering curriculum. A listing of acceptable CLEP exams can be found in the [Information for](#)

[Undergraduate Students](#) chapter of this catalog. Official CLEP score reports are required for transfer credit consideration.

International Baccalaureate (IB) Credit

International Baccalaureate (IB) credit may be granted upon receipt of official IB transcripts and/or score reports. Minimum score requirements and credit award information can be found in the [Information for Undergraduate Students](#) chapter of this catalog. IB credit may be applied toward graduation if comparable to CU Denver coursework included in the College of Engineering curriculum.

Attendance Regulations

Successful work in the College of Engineering and Applied Science is dependent upon regular attendance in all classes. Students who are absent should make arrangements with instructors to make up the work missed. Students who for illness or other good reason miss any examination must notify the instructor no later than the end of the day on which the examination is given. Failure to do so may result in an *F* in the course.

Changing Departments

Students who wish to change to another department within the College of Engineering and Applied Science must apply for transfer by submitting a change of major form for undergraduate degree students, which must have the approval of the new department. (See also discussion of interdepartmental transfer requirements under “Transfer Students” in this chapter of the catalog.)

Advising

Students are assigned specific departmental advisors for academic planning and should contact the departmental office for advising appointments.

Counseling

Personal counseling is available through the CU Denver Student and Community Counseling Center. Contact 303-556-4372 for questions or an appointment.

Course Load Policy

Full-time Students. Undergraduate students employed less than 10 hours per week should consider registering for courses as outlined in the departmental curricula. Additional courses may be allowed when there is satisfactory evidence that the student has the capability to handle the added load. Permission to take more than 19 hours may be granted by written petition and approval of the department chair and the dean’s office.

Freshman Year

Fundamentals taught in the freshman year are of critical importance in the more advanced classes. Special attention should be given to taking courses in the proper sequence. (Course requirements for freshmen are detailed within the typical curriculum given under each department.) All students are urged to consult their instructors whenever they are experiencing difficulties with course materials or for questions related to the class.

Prerequisites

Students must repeat a prerequisite course to another required course in which a grade of D+ or lower was earned before moving on to the subsequent course. If students do not successfully complete (C- or higher) an engineering class on the second attempt, they must obtain written approval from their major department to enroll for the course for the third time.

Repetition of Courses

Undergraduate students may not register for credit in a course in which they already have received a grade of C- or higher. An F grade in a required course necessitates subsequent satisfactory completion of the course. Students must repeat a prerequisite course to another required course in which a grade of D+ or lower was earned before moving on to the subsequent course. If students do not successfully complete (C- or higher) an engineering class on the second attempt, they must obtain written approval from their major department to enroll for the course for the third time. When a course is retaken because of a D or F grade, both grades will appear on the transcript and both will be averaged into the GPA. Any exceptions to these policies must be made by written petition through the Office of the Dean.

No Credit

An engineering student must request approval before enrolling for no credit (NC) for any course. Required courses must be taken for credit. Once a course has been taken NC, the course cannot be repeated for credit.

Work Experience

The College of Engineering and Applied Science does not award academic credit for work experience.

College Policy on Academic Progress

All undergraduate students must declare a major by the time they have accumulated 60 semester hours. An undergraduate engineering student must maintain a cumulative GPA of 2.0 or better in all hours attempted at the University of Colorado, in those courses applied toward graduation requirements and in all courses taken from the student's major department in order to remain in good standing in the College of Engineering and Applied Science. Grades earned at another institution are not used in calculating the GPA at the University of Colorado. However, grades earned in another school or college of the University of Colorado will be used in determining the student's scholastic standing and progress or lack of progress toward the bachelor of science degree in the College of Engineering and Applied Science.

Read about academic probation and suspension in the [University Policies](#) section.

Academic Ethics (Dishonesty, Cheating)

Students are expected to conduct themselves in accordance with the highest standards of honesty and integrity. Cheating, plagiarism, illegitimate possession and disposition of examinations, alteration, forgery or falsification of official records and similar acts or attempts to engage in such acts are grounds for suspension or expulsion from the university.

In particular, students are advised that plagiarism consists of any act involving the offering of the work of someone else as the student's own.

At CU Denver, there is a student Academic Honor Code. The code is published in a brochure available from the Office of Student Life. Information regarding all student grievance procedures may be obtained in that office.

In addition, the college has a committee on discipline that hears cases of alleged violations of academic ethics and recommends disciplinary action. In a case of proven academic dishonesty/misconduct, the committee may invoke penalties that may include probation, suspension or expulsion. In a case of suspension or expulsion, a distinction may be placed on a student's academic record indicating the action was due to academic dishonesty/misconduct. Students who suspect or observe violations of academic ethics should report them to their instructor, the department chair or the Office of the Dean.

Grading System, Incompletes, Pass/Fail and Drop/Add Procedures

See the [Registration and Records](#) chapter of this catalog for the University of Colorado uniform grading system and for additional pass/fail information and drop/add procedures.

Final grades, as reported by instructors, are to be considered permanent and final. Grade changes will be considered only in cases of documented clerical error and must be approved by the dean.

Incompletes

An incomplete may be given by the instructor for circumstances beyond the student's control, such as a documented medical or personal emergency. When it is given, the student and the departmental office must be informed in writing by the instructor, who states what the student is to do in order to remove the incomplete and the date the tasks are to be completed. The instructor will assign an "I" distinction. The student is expected to complete the course requirements (e.g., the final examination or term paper), within the established deadline and not to retake the entire course. The majority of course requirements (75%) must have been completed with a passing grade to be eligible for an incomplete. An "I" distinction will be converted automatically to a grade of "F" after one year if the specified work is not completed.

Pass/Fail

The primary purpose for offering courses on a pass/fail grade basis is to encourage students, especially juniors and seniors, to broaden their educational experience by electing challenging upper-division humanities and social sciences elective courses without serious risk to their academic records. In general, pass/fail should be limited to 3000- or 4000-level humanities and social sciences courses. Students must process the pass/fail form during the first two weeks of the semester. Engineering students cannot take required courses pass/fail.

Dropping a Course

After the tenth week of the semester, dropping a course requires a petition signed by the department chair and the Assistant Dean for Academic Affairs. Only under very extenuating circumstances, such as a documented medical or personal emergency, will petitions for dropping courses be approved after the tenth week of the semester.

Graduate-Level Courses Taken at Undergraduate Level

With faculty advisor approval, an undergraduate engineering student may be granted the opportunity to take graduate courses to be counted toward an undergraduate degree. A maximum of 6 semester hours of graduate-level University of Colorado course work taken as an undergraduate can be considered for credit toward a graduate degree. Only a grade of B (3.0) or above will be considered for graduate-level credit. All consideration of graduate work to be counted toward both an undergraduate and a graduate degree must be approved by a faculty advisor.

Graduation with Honors

In recognition of high scholarship and professional attainments, *Honors*, *Special Honors* or *With Distinction* may be awarded at graduation at the discretion of the student's major department. These honors are recorded on the diploma of the graduate and indicated in the commencement program. Grades earned during the semester of graduation will not be considered.

For *Special Honors*, a student must have a cumulative GPA of at least 3.80, and for *Honors*, a GPA between 3.60 and 3.79. *With Distinction* is awarded at the discretion of the College Executive Council.

Planning an Engineering Program

It is the responsibility of all students to do the following:

- meet with an academic advisor at least once each semester
- meet with a department transfer credit advisor as necessary
- meet with department senior check-out advisor prior to their last 30 semester hours of course work to verify progress toward graduation
- complete a graduation plan prior to the semester of intended graduation
- keep their department advisor informed of any changes in the student's plans throughout their last year

Graduation Requirements

To become eligible for one of the bachelor's degrees in the College of Engineering and Applied Science, a student, in addition to being in good standing in the university, must meet the following minimum requirements:

Courses—The prescribed and elective work in any curriculum as determined by the appropriate department must be completed satisfactorily.

Hours—A minimum of 130 semester hours is required for students seeking a civil engineering degree; a minimum of 128 semester hours for bioengineering, computer science and engineering, electrical engineering or mechanical engineering degrees.

Hours in Residence—At least 30 semester hours of course work applicable to a bachelor of science degree in engineering must be taken at CU Denver while a declared student in good standing at the College of Engineering and Applied Science. Students must be enrolled in the college for at least the final two semesters prior to graduation.

Transfer Credit—All requests for consideration of transfer credit and its application toward a degree in Engineering and Applied Science must be submitted prior to the student's last two semesters at the Denver campus.

Grade Point Average (GPA)—A minimum cumulative GPA of 2.0 is required for all courses attempted, for all required courses and for all courses taken within the student's major department.

Faculty Recommendation—The recommendation of the faculty of the department offering the degree and the approval of the faculty of the College of Engineering and Applied Science is required.

Incompletes and Correspondence Courses—It is the student's responsibility to ensure that all incompletes and correspondence courses are officially completed before the 10th week of the student's final semester in school.

Simultaneous Conferring of Degrees—For any double degree program, both bachelor's degrees must be conferred at the same commencement.

Commencement Exercises—Commencement exercises are held in December and May. A student finishing in August is encouraged to attend commencement the following December.

Undergraduate Degrees

In addition to the standard four-year degree programs previously listed, the college is involved in double degree programs.

Business and Engineering

Undergraduates in the College of Engineering and Applied Science with career interests in management may complete all of the requirements for both a BS degree in engineering and a BS degree in business administration by extending their study programs to five years, including one or two summer terms. The business courses required by the Business School may be started in the second, third or fourth year, depending upon the curriculum plan for the particular field of engineering in which the student is enrolled.

Students interested in this undergraduate program are required to submit an application to the Business School. Students should contact a business advisor to obtain the application form and determine an acceptable degree program.

Requirements for the undergraduate business degree and engineering degree must be completed concurrently. At least a 2.0 GPA must be earned in all business courses undertaken in the Business School. No fewer than 30 semester credits in business courses from CU Denver must be earned after admission to business to establish residency credit. Courses offered or required by the Business School may be used in lieu of electives required for undergraduate engineering degrees, subject to the approval of the individual department.

Joint Engineering Degrees

A student may obtain two engineering majors by meeting the requirements of both programs; however, the approval of both departments and the dean is required. Thirty hours of elective or required subjects must be completed in addition to the largest minimum number required by

either of the two departments. A course taken for one completed master's degree may not be counted toward a second master's degree.

Premedicine Option

A professional school in a field such as medicine requires a student to have a college education prior to pursuing its professional courses. In practically all cases, medical students are university graduates, although occasionally a student may enter medical school after three years of university training.

The desirability of obtaining an engineering education prior to undertaking a study of medicine is increasing continually as medicine itself is evolving. A great deal of new equipment, most of it electronic, is being developed to assist the medical practitioner in treatment of patients. Bioengineering, engineering systems analysis, probability and communication theory are highly applicable to medical problems. Improved communication techniques also are allowing the storage and retrieval of information not previously available to the medical doctor. An advanced knowledge of basic mathematics and computing techniques, along with increased understanding of physical chemistry, improves the scientific base upon which medical knowledge rests. It is therefore desirable that the future medical practitioner and researcher be well equipped with the tools engineering can offer.

To provide a minimum of the necessary knowledge, the additional courses listed below must be completed with superior grades. Students can meet these requirements by careful substitution of electives in the engineering curriculum. In some cases where additional hours may be required, interested students should consult with the engineering department chair.

General Chemistry (two semesters) (CHEM 2031, 2038, 2061, 2068), 9 semester hours

Organic Chemistry (two semesters) (CHEM 3411, 3421, 3418, 3428), 10 semester hours

General Biology (two semesters) (BIOL 2051, 2061, 2071, 2081), 8 semester hours

English Composition (one semester), 3 semester hours

Literature (two semesters), 6 semester hours

Total: 36 semester hours

Students desiring to enter a premedical program should consult the representative of the department involved. Premedical advising is available through the health careers advisor, North Classroom, 3014B, 303-556-4350.

Graduate Study in Engineering

The College of Engineering and Applied Science offers graduate programs in bioengineering, civil engineering, computer science and engineering, electrical engineering, mechanical engineering, and an interdisciplinary doctoral degree in engineering and applied science.

For information regarding courses and requirements leading to the master of science, master of engineering or the PhD degree, see the appropriate discipline heading in this section. For graduate admission information and policies, see the [Information for Graduate Students](#) chapter of this catalog.

TOEFL/Language Requirements

International graduate students who take the TOEFL English proficiency exam must score at least 525 on the paper-based exam or 71 on the Internet-based exam (IBT). International students must score a 6.0 on the IELTS exam. International students who successfully complete study at Spring International with a grade of B or better are not required to submit TOEFL scores. Students must successfully complete studies through Level Six to be eligible for the waiver consideration. Contact Spring International for more information at www.spring.edu.

Education for Employed Professional Engineers

Continuing education for employed engineers grows more important each year. Therefore, the college puts great emphasis upon making graduate courses available through late afternoon and evening courses. The master of engineering degree permits graduate students more flexibility in defining specialized interdisciplinary fields that meet their professional needs. This degree has standards equivalent to those of the master of science degree.

In addition to credit course work, the college also offers courses of interest to practicing engineers through its Continuing Engineering Education Program, 303-556-4907. (See also Continuing Engineering Education Program.)

Graduate Work in Business

Undergraduates in engineering who intend to pursue graduate study in business may complete some of the business background requirements as electives in their undergraduate programs. Seniors in engineering who have such intentions and appear likely to qualify for admission to graduate study in business may be permitted to register for graduate fundamentals courses, which are designed to provide qualified students with needed background preparation in business. Students must see an advisor from the Business School for approval.

Programs of Study

Courses listed in the following curricula are typical illustrations. Changes in specific courses may be necessary to accommodate students' needs and/or changes in institution requirements; however, students should take courses in logical sequence, i.e., complete all freshman courses before taking sophomore courses.

Programs

Doctor of Philosophy

- [Engineering and Applied Science PhD](#)

[Bioengineering](#)

Programs

Bachelor of Science

- [Bioengineering BS](#)

Master of Science

- [Bioengineering MS](#)

Master of Science/Master of Science

- [Bioengineering Dual MS](#)

Doctor of Philosophy

- [Bioengineering PhD](#)

Doctor of Medicine/Doctor of Philosophy

- [Bioengineering MD/PhD](#)

[Civil Engineering](#)

Programs

Bachelor of Science

- [Civil Engineering BS](#)

Certificate

- [Geographic Information Systems Graduate Certificate](#)
- [Sustainable Urban Infrastructure Graduate Certificate](#)
- [Water Resources Graduate Certificate](#)

Master of Science

- [Civil Engineering MS and MEng](#)

Doctor of Philosophy

- [Civil Engineering PhD](#)

[Computer Science and Engineering](#)

Programs

Bachelor of Science

- [Computer Science BS](#)

Non Degree

- [Computer Science Minor](#)

Master of Science

- [Computer Science MS](#)

Doctor of Philosophy

- [Computer Science and Information Systems PhD](#)

Electrical Engineering

Programs

Bachelor of Science

- [Electrical Engineering BS](#)

Master of Engineering

- [Electrical Engineering MEng](#)

Master of Science

- [Electrical Engineering MS](#)

Mechanical Engineering

Programs

Bachelor of Science

- [Mechanical Engineering BS](#)

Master of Engineering

- [Mechanical Engineering MEng](#)

Master of Science

- [Mechanical Engineering MS](#)

College of Liberal Arts and Sciences

Complete course list for the College of Liberal Arts and Sciences

Dean

Daniel J. Howard; Professor of Biology

Associate Deans

Laura M. Argys, Associate Dean for Research and Creative Activities; Professor of Economics

J. Jeffrey Franklin, Associate Dean for Undergraduate Curriculum and Student Affairs;
Professor of English

John Wyckoff, Associate Dean for Planning and Initiatives; Professor of Geography

Contact

Administration Office

North Classroom, Suite 5014

Phone: 303-556-2557

Fax: 303-556-4861

Undergraduate Advising Office

North Classroom, Suite 4002

Phone: 303-556-2555

Fax: 303-556-6277

Mailing Address

College of Liberal Arts and Sciences

Campus Box 144

P.O. Box 173364

Denver, CO 80217-3364

<http://clas.ucdenver.edu>

Application Deadlines

Undergraduate

Fall—July 22

Spring—December 1

Summer—May 1

Graduate

Varies by department. See individual department sections of this chapter for deadlines.

The beauty of an education in the liberal arts and sciences is its simultaneous diversity and specialization, its combination of breadth and depth. Students in the College of Liberal Arts and Sciences at CU Denver specialize in a major such as chemistry, English or psychology while creating a foundation of knowledge through general education requirements. Having a

broad background in the arts and sciences prepares you to begin your career or to change careers later, to pursue advanced study in a discipline or to study for a professional career such as law or medicine. We believe it also sets the stage for a rewarding and productive life overall. Pursuing a liberal arts curriculum not only increases your knowledge, it enables you to develop such skills as logical argumentation and clear expression, gain insights about relationships in nature and society, develop critical thinking and interpretive ability, solve complex problems rationally and heighten your aesthetic appreciation.

At the College of Liberal Arts and Sciences (CLAS), we coordinate undergraduate programs with our own graduate programs as well as CU Denver's professional schools, through which you can combine technical expertise with the broad critical and analytical skills essential to complex decision making. While our dedicated faculty have outstanding academic credentials, their greatest strength is their commitment to highly motivated students representing a broad range of age and experience. Their goal is not only to teach but to instill in our students a lifelong love for learning and respect for free and independent thinking.

Our curriculum maintains traditionally high university academic standards while providing numerous flexible learning opportunities to meet our students' varied objectives. We offer opportunities to study urban programs, confront contemporary issues, participate in off-campus internships and make use of the city's resources. Advisory committees from the community work with CLAS departments and programs, allowing cultural, historical and environmental efforts in Denver to be supported and enhanced by our academic programs.

Liberal arts and sciences undergraduates receive either a BA or BS degree. Many go on to further study in some of the best graduate and professional schools around the country, while others begin their careers in a variety of positions in industry, commerce and government. Each area of study offers a wide variety of curricula, including traditional undergraduate major programs, interdisciplinary studies and pre-professional programs.

College of Liberal Arts and Sciences Educational Goals

CLAS defines liberal education as including four major components:

1. Central elements of knowledge including:
 - a. knowledge of the diversity and significant dimensions of human culture and a specific understanding of American culture, including its political and ethnic diversity;
 - b. aesthetic awareness and appreciation of the cultural contributions made to the human experience by the social sciences and humanities;
 - c. an understanding of the methods of inquiry and development of theory that form the basis of knowledge in the natural and physical sciences;
2. Essential skills for analysis, writing, computation, communication and decision making;
3. The development of a constructive orientation toward society through the enhancement of the individual's capacity to make informed and responsible choices based on reflective consideration of the democratic principles of due process, civil liberties and the balance between individualism and the common good;
4. The ability to apply knowledge of the arts and sciences to society's specific needs.

The college works to instill in students an understanding of these components through required skills and core courses and through the knowledge and skills required by each major program in the college.

Undergraduate Programs

MAJOR DEGREE PROGRAMS

Students can earn baccalaureate degrees (including areas of emphasis indented below the major areas) in the majors listed below.

Bachelor of Arts

Anthropology
 BA - MD Program
 Communication
 Economics
 *English
 Creative Writing
 Film Studies
 Literature
 English Writing
 Ethnic Studies
 *French
 International Language and Culture for the Professions
 Geography
 Earth Science
 Environmental Science
 Environmental Studies
 General
 Urban Studies and Planning
 *History
 **Individually Structured Major
 International Studies
 Philosophy
 *Political Science
 Politics and Public Policy
 Psychology
 Public Health
 Sociology
 *Spanish
 International Language and Culture for the Professions

Bachelor of Science

Biology
 BS - MD Program
 Chemistry
 *Mathematics
 Actuarial Science
 Applied Mathematics
 General Mathematics
 Mathematics Education
 Probability and Statistics
 Physics
 Biophysics and Medical Physics
 Pure and Applied Physics
 Psychology
 Public Health

*Undergraduate Teacher Licensure option available

**Elementary Education or Secondary Science Education Licensure options available

MINOR PROGRAMS

A college minor represents a concentration of content knowledge, but not to the extent afforded in a major. Minors are optional for liberal arts students, but are encouraged to broaden educational experience and enhance occupational skills. Students interested in a minor should contact the CLAS Advising Office, North Classroom, 4002, 303-556-2555, for information, or contact the department directly. A list of minors available to CLAS students follows:

Anthropology	Environmental Sciences	Philosophy
Astrophysics	Ethics	Physics
Biology	Ethnic Studies	Political Science
Business	Film Studies	Psychology
Chemistry	French	Public Health
Chinese Studies	Geography	Religious Studies
Communication	Geology	Social Justice
Computer Science	German Studies	Sociology
Creative Writing	Health Humanities	Spanish
Demography	History	Sustainability
Economics	Law Studies	Urban and Regional Planning
Educational Studies	Literature	Women's and Gender Studies
Engineering	Mathematics	Writing

DOUBLE MAJORS

Students pursuing either the BA or BS degree may graduate with more than one major within the degree (e.g., BA in economics and Spanish or BS in biology and mathematics) by completing all requirements for both majors. A minimum of 120 total credit hours is required for double majors.

Each CLAS department determines whether a single course may be used more than once to fulfill the requirements for separate majors/minors. Students should consult with their departmental advisor to determine their department's policy.

DOUBLE DEGREES

Two different degrees (i.e., a BA and BS from CLAS, or two degrees from different schools or colleges) may be earned from CU Denver if the following conditions are fulfilled:

1. The student meets the residency requirements of, and is enrolled in, both CLAS and the college or school granting the second degree.
2. The student presents a total of at least 120 credit hours passed. If the second college sets a higher number of minimum credits for a double degree, then the higher minimum must be met.
3. The student has completed all general education requirements, CLAS graduation requirements and major requirements.
4. Both degrees must be awarded at the same time.

Students who wish to pursue either a double major or a double degree should consult with their academic advisor in order to get approval as early as possible.

Each CLAS department determines whether a single course may be used more than once to fulfill the requirements for separate majors/minors. Students should consult with their departmental advisor to determine their department's policy.

SECOND DEGREES

Students who have been awarded a bachelor's degree (either from the college or elsewhere) may be granted a second bachelor's degree provided that (a) all general requirements for that degree have been met; (b) the major for the second bachelor's degree is different from the major for the first; and (c) the college and major department residence requirements are satisfied. A second degree from the college requires a minimum of 30 additional semester hours of credit.

Declaration of Major/Minor

It is important that students declare a major as early as possible in order to receive proper advising toward departmental requirements. Students in the college must declare a major by the start of their junior year (greater than 60 hours). Transfer students to the college with junior or senior standing should declare a major in their first semester at CU Denver. Students are allowed to change their major at any time.

Graduate Programs

Graduate degree programs offered by the faculty of the college through the Graduate School are listed below. Many degrees provide the opportunity for students to specialize in concentrations within the discipline; these are noted below the degree title.

Master of Arts (MA)

Anthropology

Research Concentrations: medical, archaeological, biological, sustainable development and political ecology

Communication

Economics

English

Concentrations: applied linguistics, literature,

rhetic and teaching of writing

History

Concentrations: European, global, public history, United States

Political Science

Concentration: politics and public policy

Psychology

Concentration: clinical psychology

Master of Integrated Sciences (MIS)

Master of Science (MS)

Applied Mathematics

Biology

Chemistry

Environmental Sciences

Concentrations: air quality, ecosystems, environmental

health, environmental science, education, geospatial

analysis, hazardous waste, water quality

Master of Social Science (MSS)

Concentrations: community health science, international

studies, social justice, society and environment, women's

and gender studies

Sociology
Spanish

Master of Humanities (MH)

Concentrations: philosophy and theory
and visual studies

Doctor of Philosophy (PhD)

Applied Mathematics
Clinical Health Psychology
Health and Behavioral Sciences
Integrative Biology

Certificate Programs

The college offers undergraduate and graduate certificate programs that demonstrate proficiency in a specialized field of study. These programs differ from minor programs in that certificates may cross traditional disciplinary boundaries and are awarded independently of formal graduation.

Certificate programs are open to degree-seeking students as well as those who aren't seeking a degree but want to enhance their professional expertise, and require the completion of three to six related courses (9-19 semester hours). The list of certificate programs below has been approved by the college and will appear on the student's official University of Colorado transcript upon completion of all certificate requirements.

Information about certificate programs can be found in the coordinating department section of this catalog and the departmental Web sites, or by contacting the department directly.

Undergraduate Certificates

Applied German Language Skills (Modern Languages)
Applied Statistics (Mathematical and Statistical Sciences)
Biochemistry (Chemistry)
Biotechnology (Biology)
Community Leadership (Political Science)
Cultural Diversity Studies (Ethnic Studies)
Democracy and Social Movements (Political Science)
Ethics (Philosophy)
Geographic Information Science (Geography/Environmental Sciences)
Mediation (Communication)
Public Relations (Communication)

Graduate Certificates

Applied Statistics (Mathematical and Statistical Sciences)
Biotechnology (Biology)
Democracy and Social Movements (Political Science)
Geographic Information Science (Geography/Environmental Sciences)
Environmental Sciences
Six options: air quality, ecosystems, environmental health, geospatial analysis, hazardous waste and water quality
Historic Preservation (History)
Public, Nonprofit and Community Leadership
Public Relations (Communication)
Scientific Foundations of Technical Innovation (Physics)

Scientific Foundations of Technical Innovation
(Physics)

Sustainable Urban Agriculture (Geography/
Environmental Sciences)

Sustainable Urban Agriculture (Geography/
Environmental Sciences)

Teaching English Language
Learners (English)

Women's and Gender Studies (WGST
Program)

Continuing and Professional Education (CPE)

Managing Director: Laurel Dodds

Telephone: 303-352-3728

E-mail: Laurel.Dodds@ucdenver.edu

The College of Liberal Arts and Sciences (CLAS) participates in the University's Continuing and Professional Education (CPE) programs, which include credit courses offered through extended studies during evenings, weekends and at off-campus sites. CPE also includes non-credit courses offered for continuing education units (C.E.U.s) or for professional development and personal enrichment. Information about the CLAS CPE program can be found

at: <http://www.ucdenver.edu/academics/colleges/CLAS/ContinuingEducation/Pages/ContinuingEducation.aspx>

A full degree program, the MA in political science (politics and public policy option), is available as part of the CLAS CPE. This weekend program is offered by the Center for New Directions in Politics and Public Policy at two off-campus locations: Durango, CO and the University Center at Chaparral in Douglas County. See the [New Directions Program](#) page for further information.

Signature Areas

CLAS has developed a 12-year strategic plan (2008-2020) that includes five signature areas. Based on proposals prepared by faculty from across the college and university, these areas encompass interdisciplinary themes related to diverse contemporary issues, as their titles demonstrate:

- [Colorado Center for Public Humanities](#)
- [Math and Science Learning and Education](#)
- [Social Justice](#)
- [Sustainability](#)
- [Women's and Gender Studies](#)

Each signature area group has developed and begun to implement its vision. A managing director works with faculty and administrators from CLAS and other academic units to coordinate the development of interdisciplinary curricula, research projects, community outreach and academic programs. There are three minors which have been developed through the signature areas: social justice, sustainability and women's and gender studies. The CLAS website will announce activities and post updates about the signature areas at:

<http://www.ucdenver.edu/academics/colleges/CLAS/AboutUs/SignatureAreas/Pages/default.aspx>

Undergraduate Policies and Procedures

Requirements for Admission

CLAS Academic Advising Office: North Classroom, 4002

Telephone: 303-556-2555

Fax: 303-556-6277

Web site: <http://www.ucdenver.edu/academics/colleges/CLAS/clas-advising/Pages/CLASAdvising.aspx>

New Freshmen

Students planning to enter the College of Liberal Arts and Sciences must meet the requirements described in the [Information for Undergraduate Students](#) chapter of this catalog.

Transfer Students

Students who have attended another college or university are expected to meet general requirements for admission of transfer students as described in the [Information for Undergraduate Students](#) chapter.

Transfer students with at least 30 semester hours of transferrable credit who have been denied admission to the college by the Denver campus Office of Admissions, and who have special circumstances not covered by the regular admission policies, may petition the CLAS Academic Advising Office for provisional admission. Students may meet with an advisor from the CLAS Academic Advising Office to review detailed policies and procedures.

Grading Policies

The College of Liberal Arts and Sciences adheres to the University of Colorado grading policies found in the [Registration and Records](#) chapter of this catalog. The college also maintains specific grading policies for liberal arts students.

Incomplete Grades

When a student has special circumstances that make it impossible to complete course assignments, faculty members have discretion to award an incomplete grade. Effective January 1, 2009, all incomplete courses are now assigned a grade of Incomplete (*I*). Incomplete grades are *not* awarded for poor academic performance or as a way of extending assignment deadlines. While not required, a CLAS course completion agreement form (available from the CLAS Academic Advising Office) is strongly suggested so that faculty and student may agree in advance on the terms of completing an incomplete grade.

To be eligible for an incomplete grade, students must:

- have successfully completed 75 percent of the course
- have special circumstances (verification may be required) that preclude the student from attending class and completing graded assignments
- make arrangements to complete missing assignments with the original instructor within one academic year

Students are allowed up to three semesters (one year) to complete the requirements for the incomplete, after which the *I* reverts to an *F* grade on the student's transcript. After the one-year period, students must petition the CLAS Academic Advising Office to request a grade change.

Pass/Fail Grading Option

Students may select the pass/fail grading option for most courses. In addition to Downtown Campus policies covering the pass/fail grading option (see the [Registration and Records](#) chapter of this catalog), CLAS students must adhere to the following college pass/fail grading policies:

1. Courses used to complete a student's major, minor and certificate may not be taken on a pass/fail basis.
2. Courses required to demonstrate proficiency may not be taken on a pass/fail basis: ENGL (core curriculum), MATH (core curriculum) and first two semesters of foreign language.
3. Courses used to satisfy the intellectual competencies section of the CU Denver core curriculum may not be taken on a pass/fail basis.
4. Courses in the knowledge area section of the CU Denver core curriculum may be taken on a pass/fail basis.
5. Courses used to satisfy CLAS graduation requirements may be taken on a pass/fail basis. (Exception: communicative skills, major/minor courses.)

Repeated Courses

Students may re-register for any course. Both (all) courses remain on the transcript and both (all) grades are used to calculate the student's GPA. Course credit toward graduation is counted only once for a given course no matter how many times the course is repeated.

Academic Policies

Students are referred to the [Registration and Records](#) and [University Policies](#) chapters of this catalog for a description of academic policies that apply to all undergraduate students at CU Denver. [Graduate students are referred to the [Graduate School Rules](#) and the Graduate Policies and Procedures section below.] The policies that follow apply specifically to College of Liberal Arts and Sciences undergraduate students.

ACADEMIC ADVICE AND INFORMATION

Students in the college are expected to assume responsibility for planning their academic programs in accordance with college policies and major requirements. To assist students, the college maintains the [CLAS Academic Advising Office](#), North Classroom, 4002, 303-556-2555. Students are assigned to a college advisor in this office according to the students' last names and must meet with this advisor upon matriculation into the college. The CLAS Academic Advising Office also has a specialty college advisor in teacher education. The college advisor is responsible for advising students of college policies, degree requirements, core curriculum requirements and for the certification of college and core requirements at graduation.

As soon as students have determined a major, they should meet with a major department advisor. The major department advisor will be responsible for the student's major advising and for certification of the completion of the major program at graduation.

Students planning to ultimately earn a degree from one of the professional schools should also see an advisor in that school or college.

EARLY ALERT

The University of Colorado Denver participates in a campus-wide early alert program to identify undergraduate students needing assistance from academic and student service offices. Providing assistance early in the semester is very important to student success in their baccalaureate program. The College of Liberal Arts and Sciences is committed to actively participate in the program through a collaborative working relationship between faculty and academic advisors in the college.

The early alert program is designed for faculty to identify students in weeks five and six of the semester who need assistance because of academic performance, class participation and/or behavior issues. Assistance is provided to students identified by faculty through academic advising and through referrals to appropriate CU Denver student service offices.

Goals of the early alert program are to:

- increase student academic success
- improve student persistence and graduation rates
- increase communication between students and faculty
- increase communication between students and academic advisors
- increase student utilization of student service offices

Further information about the CU Denver early alert program is available from the [Undergraduate Experiences Office](#) at 303-556-6506.

ACADEMIC PROBATION AND SUSPENSION

Students at the university are expected to maintain progress in their degree program, as defined by being in “good academic standing.” Good academic standing requires minimally a cumulative grade point average (GPA) of 2.0 on all University of Colorado course work.

Academic Probation

- Academic probation is a warning to students that they are not progressing toward completion of their degree in a satisfactory manner.
- Students are placed on academic probation when their cumulative CU GPA falls below a 2.0 at the end of any academic term.
- Students are informed in writing (via University-assigned email) of their academic probation status.
- Students on academic probation will be required to complete the Academic Success Plan during their first semester on academic probation.
- Students will be required to schedule an appointment and meet with their academic advisor, by the appointed deadline, to discuss the completed Academic Success Plan before they will be allowed to register for the subsequent term.

- Students on academic probation will be required to schedule an appointment and meet with their academic advisor every semester that they are on academic probation before they will be allowed to register.
- Academic probation requires that students achieve a minimum 2.3 semester GPA each subsequent term until their cumulative CU GPA is at least a 2.0 to return to good academic standing. Students must achieve a minimum 2.0 cumulative CU GPA to meet graduation requirements.
- Students who fail to earn the 2.3 semester GPA during any semester while on academic probation will be placed on restricted academic probation.
- Students have five semesters or 30 credits (whichever happens sooner) to raise their cumulative GPA to above a 2.0, or they will be placed on academic suspension.
- Once a student has raised his/her cumulative CU GPA to at least a 2.0, s/he will be removed from academic probation and notified via university-assigned email that s/he is in academic good standing.

Restricted Academic Probation

- Students who fail to earn the 2.3 semester GPA during any semester while on academic probation will be placed on restricted academic probation.
- Students are informed in writing (via University-assigned email and postal letter) of their restricted academic probation status.
- Students on restricted academic probation will be allowed to enroll for a maximum of 6 credits or 2 classes per semester (whichever is more). A course and its attached lab are considered to be one course in this case.
- Students on restricted academic probation will be required to schedule an appointment and meet with their academic advisor, by the appointed deadline, in order to register for courses.
- Students on restricted academic probation will not be able to register online; they will need to register for courses using a Schedule Adjustment Form, which must be submitted to the Service Center (North Classroom #1003) for processing.
- Restricted academic probation requires that students achieve a minimum 2.3 semester GPA each subsequent term until their cumulative CU GPA is at least a 2.0 to return to good academic standing. Students must achieve a minimum 2.0 cumulative CU GPA to meet graduation requirements.
- Students on restricted academic probation who do not meet the minimum 2.3 semester GPA will be placed on academic suspension.
- Students who fail to raise their cumulative GPA to 2.0 or above in five semesters or 30 credit hours while on academic probation and restricted academic probation will be placed on academic suspension.
- Once a student has raised his/her cumulative CU GPA to at least a 2.0, s/he will be removed from restricted academic probation and notified via university-assigned email that s/he is in academic good standing.

Academic Suspension

- Students on restricted academic probation who do not meet the 2.3 minimum semester GPA will be placed on academic suspension.
- Students who fail to raise their cumulative GPA to 2.0 or above in five semesters or 30 credit hours (whichever happens sooner) while on academic probation will be placed on academic suspension.
- Students who fail to raise their cumulative GPA to 2.0 or above in five semesters or 30 credit hours (whichever happens sooner) while on restricted academic probation will be placed on academic suspension.
- Students are informed in writing via certified/registered letter of their academic suspension status.
- The minimum duration of academic suspension is for a period of one year (three semesters, including summer term). Students placed on academic suspension will be unable to take courses from any CU campus during this time.
- Should a student be placed on academic suspension while registered for the next semester, s/he will be administratively dropped from their courses by the University.
- A student's academic suspension status is permanently indicated on his/her official University of Colorado transcript.
- During the one-year academic suspension period, students who wish to return to the university should consider one (or both) of the following actions:

- ♦ Attend another regionally-accredited college/university.

Students who choose to attend another institution while on academic suspension can take as many or as few credits as they choose, but must earn a 2.75 cumulative GPA in all transferable course work.

Students should consult their academic advisor to discuss appropriate course work.

- ♦ Use the time off to directly address and resolve the factors that contributed to the academic difficulty.
- After the one-year suspension period has elapsed, students must petition the appellate committee (of the school or college they wish to enter) for readmission and meet and document at least one of the following criteria:
 - ♦ Attendance at another regionally accredited college/university where they earned a minimum cumulative GPA of 2.75 in transferable credit.
 - ♦ Explanation of their previous academic difficulty, demonstration of what has changed, and how this will allow them to now achieve and maintain good academic standing (including a semester GPA of at least 2.3 and a cumulative GPA of at least a 2.0).
- Students who choose to petition their college's appellate committee for readmission must submit their petitions by the following deadlines:
 - ♦ For fall admission: June 1
 - ♦ For spring admission: December 1

♦ For Maymester/summer admission: April 1

- If a student is granted readmission and his/her CU GPA is below a 2.0, s/he will be readmitted on restricted academic probation. These students must meet the conditions of restricted academic probation every semester until their cumulative CU GPA is at least 2.0.

Second Suspension

- Students who are readmitted after their first academic suspension and fail to meet the conditions of restricted academic probation for a second time are placed on a second suspension for an indefinite period of time.
- Students on a second suspension may be readmitted to the University only by petition to the college's appellate committee.
- Students will not be considered for readmission unless they have demonstrated significant improvement in academic performance at the college/university level, and/or considerable and positive change in personal circumstances.

EARNING ACADEMIC CREDIT—SPECIAL OPTIONS

Students in the college may earn credit toward a degree for knowledge gained prior to enrollment in the college or for knowledge gained outside traditional college courses. Specific programs by which credit is awarded are described below. In addition, credit may be earned for ROTC.

General information regarding these options can be found in the “Transfer of College-Level Credit” section of the [Information for Undergraduate Students](#) chapter. Students should contact the CLAS Academic Advising Office for specific details of these programs. For credit in a student's major or minor, the appropriate department must be consulted.

Advanced Placement/International Baccalaureate

Students who have taken advanced courses in high school and who have earned high scores on the Advanced Placement or International Baccalaureate standardized exams may be eligible for university credit. See the [Information for Undergraduate Students](#) chapter of this catalog under “Transfer of College-Level Credit” for additional information. Individual departments establish advanced placement criteria for credit. Students should contact the department advisor for specific details concerning advanced placement credit.

College Level Examination Program (CLEP)

College of Liberal Arts and Sciences students may earn university credit by examination in subject areas in which they have obtained college-level proficiency. The use of CLEP subject examinations toward major, minor or certificate requirements is subject to a separate evaluation by the faculty advisor in the department or program. To receive academic credit from CLEP, students must present official test results to the Downtown Campus Office of Admissions. A maximum of 30 hours of CLEP credit will count toward the degree. See the “Transfer of College-Level Credit” in the [Information for Undergraduate Students](#) chapter of this catalog for additional information.

Credit by Examination

Students with sufficient experience and knowledge may receive credit for a specific course by taking a comprehensive examination given by the faculty. Students should consult the [Registration and Records](#) chapter of this catalog for more information.

Internships or Cooperative Education

Undergraduate students may seek credit from an employment experience that contains academic content and is sponsored by a CLAS faculty member. Internships are helpful for career exploration early in a student's academic career or for job experience after developing academic content in the major.

Students must have a minimum 2.75 cumulative GPA in a minimum of 15 semester hours of CU Denver course work. A maximum of 3 semester hours of internship credit per semester and 9 semester hours overall are allowed toward the 120 semester hours applied toward graduation. Undergraduate students should contact the [Experiential Learning Center](#) for details about the internship contract and faculty sponsorship requirements.

Courses in the Professional Schools and in Physical Education

Students may count up to 24 semester hours of academic course work taken outside of liberal arts, such as business, engineering, public affairs, architecture and education.

Up to 8 semester hours of activity courses in physical education will count toward the 120 hours required for the degree; these are included in the 24 semester hours allowed outside CLAS.

Independent Study

Qualified CLAS undergraduate students who seek to further their examination of knowledge outside the structured classroom are encouraged to register for independent study. Undergraduate independent study is a nonstructured, independent research project under the sponsorship and supervision of a faculty member. Students should consult with the faculty sponsor to discuss the project and initiate the independent study contract.

To qualify for independent study credit, students must have a declared major or minor in the discipline of the independent study project and a minimum cumulative CU Denver GPA of 2.5. Those seeking senior level independent study must have a minimum junior standing and sufficient course work to allow independent research in the discipline.

Faculty seeking to sponsor an independent study project must have either instructor or tenure-track rank. Faculty seeking to sponsor an independent study project as part of an undergraduate honors project must be tenure-track rank.

Independent study projects are typically awarded credit on a 3:1 (4:1 in summer) basis for contact hours per week to semester hours. That is, a 3-semester-hour independent study project typically requires 9 hours of effort per week over the semester.

To register for an independent study, students must complete a Special Processing Form to describe the nature of the project, expectations and grading system. This form must be

approved by the faculty sponsor and by the CLAS Dean or designate, before the student can enroll.

Graduation Requirements

Undergraduate students graduating from the College of Liberal Arts and Sciences must fulfill requirements for the college and for the major department. Residence requirements apply to both college and major department. A checklist of graduation requirements follows in this section.

Students are responsible for knowing the requirements for their degree and for fulfilling these requirements. Upon completion of the college and major requirements, the student will be awarded the appropriate degree.

General Requirements

- a minimum of 120 semester hours passed
- a minimum 2.0 cumulative GPA
- a minimum of 45 semester hours of upper-division work
- a minimum of 30 semester hours of CLAS course work with letter grades at the Downtown Campus
- fulfillment of all college and major requirements

CLAS CORE CURRICULUM AND GRADUATION REQUIREMENTS

General Education

The general education graduation requirements are established by the CLAS faculty and combine specific requirements from (1) the CU Denver core curriculum, (2) the CLAS graduation requirements and (3) foreign language proficiency.

Major Requirements

In addition to completing the college requirements outlined above, students must declare a major and fulfill all requirements of the major department. Department requirements include at least 30 semester hours of work in the major with a minimum grade of *C* (2.0), of which at least 16 semester hours in the major are at the upper-division level. The GPA in a CLAS major must be at least 2.0, but certain CLAS departments require a higher GPA. Information on the minimum GPA can be obtained from the major department.

The college places a maximum number of semester hours (required plus elective courses) in the major department, discipline or program as follows: for both the BA and BS, the maximum number of hours allowed within the major is limited to 56. The purpose of the **56-hour rule** is to ensure a diverse and well-rounded liberal arts and sciences education.

The department is responsible for determining when a student has successfully completed the major requirements and for certifying the completion of the degree.

Residence Requirements

A minimum number of semester hours must be earned in residence in the College of Liberal Arts and Sciences. All students have college and major residence requirements. Students should check with their major department to ascertain residence requirements for the major.

Students transferring to the Denver campus must pay particular attention to residence requirements.

Residence credit hours are earned from CLAS courses taught by CU Denver faculty while the student is enrolled as a degree student in the College of Liberal Arts and Sciences.

All CLAS students must meet college residence requirements.

1. Students must earn a minimum of 30 residence semester hours.
2. For students who exceed the minimum 30-hour residence requirement, a minimum of 21 out of the last 30 semester hours applied toward graduation requirements must be in residence.
3. Departments maintain a residence requirement for the major, minor and certificates. Students should consult with a faculty advisor concerning departmental residence requirements.

Graduation Application

Students are required to meet with their CLAS advisor and major/minor advisors at the beginning of the semester/term in which they plan to graduate to initiate the graduation verification process. After students meet with their advisors, they should complete the online Apply for Graduation process in their UCD Access Portal. The deadline for completing the graduation application online is the published last day to add courses in each semester. After the last day to add courses, the CLAS Academic Advising Office will approve or deny students' application to graduate in the student information system. If the degree is not completed, they must resubmit the application to graduate each subsequent semester/term until graduation. Failure to submit the online application to graduate will result in delayed graduation.

Academic Honors

College Honors

A student who performs superlatively in course work in the college will be awarded a bachelor's degree accompanied by the statement *with distinction*. To be eligible for graduation with distinction, a student must have completed a minimum of 45 semester hours at the University of Colorado (on any CU campus), including the final semester, with a GPA of at least 3.75. The 45 semester hours must be completed in the student's junior and senior years. A maximum of 6 out of the final 45 semester hours may be completed with a grade of *P* (on *P/F* option).

Departmental Honors

Departments in the college offer programs through which students can qualify for Latin honors: *cum laude*, *magna cum laude* or *summa cum laude*. Determination of the level of honors is made by the department. Detailed information can be obtained from the CLAS Academic Advising Office or from the individual department.

Dean's List Criteria

CU Denver will use a fixed criterion across all colleges for determining eligibility for the Dean's List. This policy applies to undergraduate students.

For fall and spring semesters, students must successfully complete 9 hours in the semester, upon which to determine grade point average. These courses can be both within and outside of the college. Pooled courses will not be included in the calculation nor will they count toward the 9 hours required for consideration. The GPA required for inclusion in the Dean's List is 3.75.

In the summer semesters, students must complete 6 hours as a basis for inclusion in the Dean's List. Course inclusion is the same as in fall and spring semesters. The GPA required for Dean's List in summer is also 3.75.

Incompletes will not be considered in the calculation of minimum number of hours. The Dean's List will not be recalculated to include completed incompletes.

Colleges will collect data each semester on the number of students making the Dean's List.

Scholarships tied to Dean's Lists in individual colleges may have additional requirements.

Graduate Policies and Procedures

Admission to Graduate Programs

Each CLAS graduate program handles admissions to its master's or doctoral programs, and defines its own admission standards and procedures based upon the general [Graduate School guidelines](#). CedarCrestone, the CU online application system, is used for all graduate admissions; go to

https://soaprod.cusys.edu/degreeprog/applyDEGREEPROG_CUDEN/login.action to begin your online application. This system allows students to submit online their application essays, letters of recommendation, application fee and other materials, in addition to their online application form.

The criteria for admission shall be based on a combination of the following: minimum 3.0 GPA, standardized examinations, prior professional experience, portfolios or other indicators. Regular admission to master's programs requires the completion of a bachelor's degree or master's degree from an accredited college or university at the time of matriculation or demonstration of the completion of work equivalent to that required of these degrees as specified by CU Denver.

Students are admitted as regular or provisional students. Students receiving provisional admission are subject to certain requirements set out by their programs for a probationary period, not to exceed two years. The requirements may be more stringent, but provisional students must complete each semester's course work with a GPA of 3.0 or higher on all work taken.

International students must meet all requirements for regular admission as well as the requirements of the CU Denver Office of International Affairs. These include: documentation in

English or a certified English translation of the completion of a bachelor's degree, master's degree or the equivalent at the time of matriculation as evaluated by International Admissions; financial documents required by the CU Denver Office of Admissions; a certified English translation of all records and references not in English; TOEFL scores at the level specified by the program to which the student is applying. See the [Information for International Students](#) chapter for more information.

Transfer Credits

Up to 12 semester hours can be transferred in from another graduate program (including hours taken at CU Denver as a nondegree student with a grade of *B-* or better) and applied toward a CLAS master's degree; however, some programs allow fewer credits to be transferred. Courses taken while still an undergraduate student may be counted as pre-admission credits, but may not exceed the 12-semester-hour transfer limit and cannot have been applied toward the undergraduate degree. Only courses numbered 5000 and above or classified as graduate level can be transferred. Up to 30 transfer semester hours or semester hours taken as a nondegree student may be applied toward a PhD degree. Courses taken more than 5 years prior to admission must be revalidated by the department or program.

Readmission

If less than one calendar year has passed since a student in good standing was last enrolled in courses at CU Denver, a student must only notify the program they wish to re-enter. If a student does not register for three consecutive terms, he/she needs to be readmitted. This requires the student to submit Part I of the graduate admission form to their department or program; they must also pay the application fee. Those who have not been active for more than four years must complete the full application process.

PhD students may apply for a time extension or leave of absence as long as the total time to complete the degree does not exceed 10 years. Up to one year of an approved leave of absence may be taken without reapplying to the program upon return.

Changing Degree Programs

Students changing degree programs need to be admitted by the new department. They must provide all items required of students applying for the first time, but may petition the program to which they were originally admitted to release their initial application materials to the new department. Any transfer of courses to the new degree program is at the discretion of the new department or program.

Advisors

Students should consult with their graduate program advisors at least once a year following admission to the program. Each graduate program has a faculty coordinator who should be consulted about program requirements. This may be the same person as a student's faculty advisor. While students are strongly encouraged to meet with their faculty advisor every semester, they *must* meet with their faculty advisor and/or faculty coordinator at the beginning of their last semester to verify that all degree requirements have been met and to have their candidacy form approved and signed.

Graduate Courses

All courses that count toward a graduate degree must be approved by the degree-granting graduate program. At least 30 hours must be considered graduate rank (taught by graduate faculty). Eighty percent (80%) of the total hours required for a graduate degree must be taken at 5000-level or above, with the remainder subject to departmental approval.

Students may use courses offered through the [continuing and professional education program](#) in the pursuit of graduate study only if they obtain proper academic approval from the graduate program.

Graduate students may take up to a total of 7.5 independent study semester hours (in a 30-hour program), or 25 percent of the total program hours, under the direct supervision of a faculty member and with the approval of the CLAS graduate coordinator. However, it is important that students check with their programs concerning the maximum number of independent study credit hours that may count toward their degree, as this number may vary. The minimum CU Denver GPA required to register for independent study credits is 3.0, and students must be admitted to a CLAS degree program. Each independent study project may be taken for 1-3 semester hours. Students use the special processing form to outline the project and how the grade is determined, which then must be approved by the supervising faculty member and CLAS graduate coordinator.

Graduate-level internship credit may be earned in some programs. Students must be admitted to a CLAS degree program, have completed a minimum of 6 semester hours and have a minimum 3.0 GPA. A maximum of 6 hours of internship credit is allowed, except where specified by the program (i.e., clinical psychology). Students should contact the [Experiential Learning Center](#) for details about the internship contract and faculty sponsorship requirements.

Minimum GPA

A minimum cumulative GPA of 3.0 in courses applied to a degree program is required. Grades of *B-* or better are accepted for most master's degree programs; however, some programs have more stringent grade requirements. Doctoral minimum grade is *B-*. Courses applied to a graduate degree may not be taken pass/fail.

Probation

A student whose cumulative GPA falls below 3.0 or who receives a grade lower than a *B-* will be placed on academic probation by the Graduate School dean. A registration stop will be placed on students at the time they are placed on probation. This stop keeps probationary students from registering until they meet with their departmental advisor to plan courses that will be taken; then the stop will be removed. A probation contract is set up and signed by the faculty advisor and student, and then filed in the Graduate School.

In the two semesters following placement on probation, the student is allowed to take only courses applicable to the degree (as specified in the probation contract) and all grades must be at or above a *B*, or the student will be suspended. At the end of two semesters after being placed on probation, the student must raise his/her cumulative GPA to 3.0 or he/she will be suspended.

from the University, and will not be able to register for any courses. A student may petition the Graduate School dean for an extension of the probationary period in extenuating circumstances.

Incomplete Grades

When a student has special circumstances that make it impossible to complete course assignments during the semester, faculty members have discretion to assign a grade of Incomplete (*I*). Incomplete grades are *not* awarded for poor academic performance or as a way of extending assignment deadlines. While not required, a CLAS course completion agreement form (available from the CLAS Advising Office) is strongly suggested when faculty and student agree on an incomplete grade.

To be eligible for an incomplete grade, students must:

- have successfully completed 75 percent of the course
- have special circumstances (verification may be required) that preclude the student from attending class and completing graded assignments
- make arrangements to complete missing assignments with the original instructor within one academic year

Students are allowed three semesters (one year) to complete the requirements for the incomplete, after which the *I* reverts to an *F* grade on the student's transcript. Any request to allow a grade change after the one-year period must be petitioned to the CLAS Academic Standards Committee.

Thesis/Project/Dissertation

Master's programs can be either thesis plan or non-thesis plan; non-thesis plans may include a project or report. Four to six thesis semester hours can be applied toward a master's program. Three to six project semester hours can be applied toward a master's program. Students may register for one or more thesis or project credits each semester up to the maximum.

For doctoral programs, a minimum of 5 hours and maximum of 10 hours of dissertation credit may be registered for in any semester. Students must receive approval from the CLAS graduate dean and the dean of the Graduate School to register for fewer than 5 dissertation hours.

Doctoral candidates must be registered for dissertation credit each fall and spring semester following successful completion of the comprehensive examination. Students on leave of absence, approved by the program and filed with the Graduate School, do not have to register for dissertation credits.

A student does not have to register for thesis or dissertation credits after a successful final examination and thesis defense even if the final version of the thesis/dissertation and the record of the final examination are submitted to the Graduate School at a later date.

Thesis/Dissertation Procedures

The thesis/dissertation must comply with specifications outlined in the "[Thesis and Dissertation Style-Policy Manual \(2012\)](#)," and have received a preliminary thesis format approval from the

Graduate School. The student's faculty committee must approve the final draft of the thesis before it is approved for electronic submission and publication.

Research Protocol

Students doing research that involves gathering data from human subjects must have their research protocol approved by the [Human Research Committee](#). Students doing research that uses animals in any form must have their research protocol approved by the [Animal Care and Use Program](#).

Graduation Application

Master's and doctoral graduate students complete the graduation process through the CLAS Graduate Coordinator in the Graduate School, Lawrence Street Center, Suite 1251. Both master's and doctoral candidates must follow deadline dates published in the online [Graduate School website](#) and on sheets available from departmental graduate advisors or the Graduate School.

All graduate students must complete the online Apply for Graduation process in their UCD Access Portal the semester they intend to graduate, plus submit the application for admission to candidacy and a request for graduate examination/thesis defense to the Graduate School. The deadline for completing the graduation application online is the published last day to add courses in each semester. After the last day to add courses, the CLAS Graduate Coordinator will approve or deny students' application to graduate in the student information system. If the degree is not completed, students must resubmit the application to graduate each subsequent semester/term until graduation. Failure to submit the online application to graduate will result in delayed graduation.

Admission to Candidacy

The application for admission to candidacy form is available in the Graduate School, the student's program office or online at the [Graduate School website](#). This application must be signed by the student's advisor and the program coordinator, certifying that the student's work is satisfactory and that the program outlined in the application meets the requirements set for the student.

A student on probation is not eligible to be awarded a degree until s/he is removed from probation. A student with provisional admission status must be changed to regular admission status before admission to candidacy.

Deadlines

The Graduate School deadlines (to file the application for admission to candidacy and intent to graduate, schedule and hold the comprehensive exam or thesis/project defense, submit thesis for format review, and turn in the final thesis) are published each semester and are available from the CLAS Dean's Office, departmental graduate advisors and the Graduate School. Deadlines and forms are also posted on the [Graduate School website](#). It is the student's responsibility to know and to adhere to these deadlines.

Comprehensive Examination or Thesis/Project/Dissertation Defense

Students must be registered when they take the comprehensive examination or defend the thesis or project. This can be accomplished by registering to take a regular course, independent

study/thesis/project credits or through candidate for degree registration. The examination may be oral, written or both.

The master's examination must be given by a committee of three members of the graduate faculty, all of whom sign an exam report form signifying that the student has passed the exam or defense. The committee chair must be a regular member of the Denver campus graduate faculty, and the other members must hold at least a special graduate faculty appointment. PhD dissertation defense committees include four graduate faculty members, one of whom is from outside the primary department, and must unanimously approve the examination.

The record of the thesis defense must be approved by the student's faculty committee and filed with the CLAS Graduate Coordinator before graduation. In programs where the project/report defense counts as the comprehensive exam, this requirement applies to projects/reports as well. A student who fails the comprehensive final examination or defense may retake the examination only once.

Time Limits

Master's degree students admitted after January 2009 have a maximum of five years from the date of the start of course work after admission to the program to complete all degree requirements. This limit can be extended by a leave of absence approved by the student's graduate program. Students admitted prior to January 2009 have seven years to complete their master's degrees (according to previous Graduate School Rules).

Doctoral students have eight years from the date of the start of course work after admission to complete all degree requirements for a PhD (10 years with approved leave of absence).

Note: Individual graduate programs may have time limits that are more stringent.

Residency Requirements

A minimum of two semesters of work must be completed at CU Denver.

Academic Ethics and Petitions

Academic Ethics

[This information applies to both undergraduate and graduate students in the College of Liberal Arts and Sciences.]

As members of the CU Denver academic community, faculty and students accept the responsibility to maintain the highest standards of intellectual honesty and ethical conduct in all forms of academic work. While most violations center around cheating or plagiarism, the CU Denver Academic Honor Code is more comprehensive and includes the following categories: plagiarism, cheating, fabrication and falsification, multiple submission, misuse of academic materials and complicity in academic dishonesty.

The CLAS Academic Ethics Committee, composed of faculty, students and staff, is charged with establishing academic ethics policies and, when necessary, evaluating ethics charges against

students. Faculty and students should be familiar with the Academic Honor Code for the Denver campus (see the [University Policies](#) chapter) and the CLAS Academic Ethics Policies, available from the CLAS Academic Advising Office, North Classroom, 4002, and online at the [CLAS Academic Advising website](#).

Faculty who charge student(s) with a violation of the Academic Honor Code may lower a student's grade without review. If the faculty decision concerning the alleged violation affects the student's assignment or course grade, a letter to the student is required with copies to the Department Chair and the CLAS Associate Dean for Student Affairs. Students charged with an ethics violation are required to continue to participate in the class and may appeal the faculty decision to the CLAS Academic Ethics Committee. Students charged with a violation of the Academic Honor Code are encouraged to meet with an advisor in the CLAS Academic Advising Office to review their rights and obtain assistance with procedures.

Petitioning for Exceptions to Standing Academic Policy

The CLAS Academic Standards Committee is responsible for the administration of the academic policies of the college as established by the faculty. This committee constitutes the bridge between the faculty in its legislative capacity and the students upon whom the legislation comes to bear. The committee is empowered to grant waivers of exemptions from and exceptions to the academic policies of the college. Students wishing to submit a petition to the committee should meet with an advisor in the CLAS Academic Advising Office first to discuss the petition. The Graduate Council reviews grievances related to procedural issues for graduate students that cannot be resolved at the college level.

Students in the College of Liberal Arts and Sciences may appeal a grade. Every attempt is made to resolve grade disputes at the department level. However, unresolved grade issues may be appealed to the CLAS Academic Standards Committee and initiated through the CLAS Academic Advising Office, North Classroom, 4002, 303-556-2555. Details of the grade appeal policies are available in the CLAS Academic Advising Office.

Drop and Add Deadlines

The Office of the Registrar establishes deadlines each semester for registering, adding courses, dropping courses, selecting the pass/fail option and withdrawing from the university. These deadlines are clearly identified on the [Registrar's website](#). Students seeking to waive these deadlines must petition the assistant/associate dean of the college. Instructions for deadline petitions are available from the CLAS Academic Advising Office, or the Graduate School for graduate students.

Retroactive Drop/Withdrawal

In the event of circumstances that preclude a student from attending class, it is the student's responsibility to carry out drop procedures before the end of the semester. It is against normal college policy to allow a student to drop after the completion of the semester for which grades are already posted.

Students who must stop attending one or more of the classes in which they are enrolled for a term, but who fail to properly drop, may be eligible for a retroactive drop or withdrawal. Courses

must have occurred no more than seven years prior to the date of the retroactive drop/withdrawal petition to be eligible.

It is the responsibility of the student seeking a retroactive drop/withdrawal to submit a complete written petition. Detailed instructions can be obtained from the CLAS Academic Advising Office, or the Graduate School for graduate students.

Preparation for Professions

Completion of the undergraduate curriculum of the College of Liberal Arts and Sciences can prepare students for a number of careers in the professions. See below for information on preparation for those professions most frequently asked about by students in the college. Students seeking information about other professions should contact the CLAS Academic Advising Office, North Classroom, 4002, 303-556-2555.

Law

Students intending to enter a school of law may major in any field while completing the bachelor's degree, since law schools do not typically specify course work entrance requirements. More important to law schools are methods of study, critical thinking and communication skills. Students interested in law school should consider the interdisciplinary minor in law studies (see [Law Studies](#) in the CLAS departmental descriptions). For further information, contact the CLAS Academic Advising Office or one of the faculty advisors identified in the law studies minor.

Health Careers

The college has faculty health careers advisors to assist students in preparing for careers in the following:

- dentistry
- medicine
- osteopathy
- veterinary medicine

Course programs also have been developed within the college to prepare students for the following specific careers within the general area of health sciences:

- dental hygiene
- medical technology
- nursing
- optometry
- pharmacy
- physical therapy
- physician assistant
- podiatry

Because the prerequisites for these health career programs are continually changing, students interested in pursuing one of these careers should contact a health careers advisor at 303-556-

4350 or 303-556-6218 for current requirements and for advising. See the [Health Professions](#) chapter of this catalog for further information.

Undergraduate Teacher Education Program

The undergraduate teacher education program at CU Denver is a joint effort between the College of Liberal Arts and Sciences and the School of Education & Human Development. Students earn a bachelor's degree through the College of Liberal Arts and Sciences and a teaching license through the School of Education & Human Development.

This undergraduate program is dedicated to quality teacher education. To that end, our admission standards are rigorous and there are a number of program “gates” that teacher candidates go through to complete licensure.

Undergraduate teacher candidates can earn a bachelor's degree and a Colorado provisional teacher's license in the following areas:

BA—Individually Structured Major Elementary Education Licensure

BA- Individually Structured Major Science Education Licensure

BA—English Literature Secondary English Licensure

BS—Mathematics Secondary Mathematics Licensure

BA—History Secondary Social Science Licensure

BA—Political Science Secondary Social Science Licensure

BA—Spanish Secondary Spanish Licensure

BA—French Secondary French Licensure

College-wide Interdisciplinary Programs

INTERDISCIPLINARY PROGRAMS IN THE COLLEGE OF LIBERAL ARTS AND SCIENCES

Joint Degree Programs BA/MPA

The College of Liberal Arts and Sciences, in cooperation with the School of Public Affairs, offers students the opportunity to complete both a bachelor's degree and master's degree in five years rather than the usual six years. The program combines undergraduate general education and major studies with a specialized curriculum in public affairs and strives to develop intellectual and professional skills in a coordinated manner. Participating major programs in CLAS include communication, economics, political science and sociology, as well as others.

Students in the BA/MPA program must fulfill all of the graduation requirements for the College of Liberal Arts and Sciences; maintain a 3.5 undergraduate GPA in CLAS and have completed 75 percent of their undergraduate program to be eligible for admission; and enroll formally in the

programs through the CLAS Academic Advising Office. Students admitted to the program begin taking graduate-level courses in public administration during their senior year. These courses will count toward the bachelor's degree as electives. For further information, contact the CLAS Academic Advising Office, 303-556-2555.

Centers and Institutes

Center for Computational Mathematics

Director: Jan Mandel

Telephone: 303-556-4475

E-mail: Jan.Mandel@ucdenver.edu

Website: <http://math.ucdenver.edu/ccm>

The Center for Computational Mathematics was established to foster research in one of the discipline's most exciting new field. Through extensive ties with industry along the Front Range and government laboratories across the country, the center provides outstanding opportunities for motivated students to receive additional training and experience.

Center for New Directions in Politics and Public Policy

Director: Kathryn Cheever

Telephone: 303-556-5950

E-mail: Kathryn.Cheever@ucdenver.edu

Website: clas.ucdenver.edu/newdirections/

The center's programs are based on the notion that effectively addressing the public priorities of the 21st century requires that those working on matters of public interest possess a keen understanding of the political forces that guide or thwart the successful mobilization of resources and the achievement of constituent goals consistent with the public interest. Similarly, the need and opportunity for the active engagement—or leadership—of concerned citizens in the policymaking process is greater than ever before. Accordingly, students in any of the center's academic programs will be representative of not only those working professionals in the public and nonprofit sectors, but also elected officials; community activists; interest-group stakeholders; educators from a wide range of demographic, occupational and personal backgrounds; and simply concerned citizens.

Center for Research in the Health and Behavioral Sciences

Director: Susan Dreisbach

Telephone: 303-556-6796

E-mail: Susan.Dreisbach@ucdenver.edu

The Center for Research in the Health and Behavioral Sciences (CRHBS) is dedicated to promoting research and community service in health issues facing the local Denver area, Colorado, the nation and beyond. Research conducted by the allied CRHBS faculty is unique in integrating biomedical, public health and social science perspectives. Current external funding of research through CRHBS is focused on such topics as preventing HIV and STD transmission

program evaluation. Research assistant and internship positions for students in the health and behavioral sciences doctoral program are commonly available through CRHBS.

Colorado Center for Public Humanities

Director: Philip Joseph

Telephone: 303-556-4648

E-mail: Philip.Joseph@ucdenver.edu

Website:

<http://www.ucdenver.edu/academics/colleges/CLAS/Centers/publichumanities/Pages/index.aspx>

The work of this center is oriented around two primary goals. First, as a think-tank, the center investigates the public value of the humanities disciplines in relation to historical change by sponsoring programs that help to clarify the roles that humanities-based scholarship can play within the region, the nation and the world more generally. Our second goal is to direct the engagements of humanities scholars toward extra-academic communities. In pursuing this objective, the center will support scholars whose research programs are designed to reach civic groups outside the university walls and to benefit from the involvement of these groups.

Fourth World Center for the Study of Indigenous Law and Politics

Director: Glenn T. Morris

Telephone: 303-556-2850

E-mail: Glenn.Morris@ucdenver.edu

The Fourth World Center for the Study of Indigenous Law and Politics was founded in 1984 as a resource commons of authoritative information on indigenous peoples' affairs. The major components of the center's educational project are:

- the creation and presentation of a university-level multidisciplinary curriculum focused on the study of indigenous peoples
- the publication of the *Fourth World Bulletin*, a journal on indigenous politics with a global concentration
- the development of university textbooks for the study of indigenous politics
- the presentation of public forums
- the presentation of testimony before international legal organizations

The center features a library, periodicals, audio and visual equipment and online news archives on current development issues surrounding "the Fourth World."

Shared Analytical Services Laboratory

Lab Manager: Jeff Boon

Telephone: 303-556-4520

E-mail: Jeffery.Boon@ucdenver.edu

Website: clas.ucdenver.edu/sasl/

The Shared Analytical Services Laboratory fosters and promotes disciplinary and interdisciplinary research in the environmental sciences. Faculty represent disciplines within the College of Liberal Arts and Sciences, as well as civil engineering. Services provided by the laboratory are available to all members of the university community, as well as to members of the public and private sectors through joint projects.

Smart-Girl Leadership Institute

Telephone: 303-556-2557

Website: <http://www.ucdenver.edu/academics/colleges/CLAS/FacultyProjects/Pages/community-programs.aspx>

The Smart-Girl Leadership Institute is a prevention and enrichment program that trains college students to lead and inspire adolescent girls to make smart choices and become confident, capable and self-reliant women. CU Denver students earn credit while they build the skills to lead small groups of girls through a fun and effective curriculum.

Writing Center

Director: Justin J. Bain

Office: North Classroom, 4014

Telephone: 303-556-4845

Website: writingcenter.ucdenver.edu

The Writing Center provides free writing assistance to all students. Professional writing consultants assist writers of all levels and in all disciplines on any type of written work. All consultations are by appointment; to schedule an appointment please visit our website.

In addition, the center hosts professional development workshops for graduate students and faculty; maintains a library of grammar handbooks, citation manuals and composition texts; and conducts informational class visits. For additional information on our services for students, see the listing in the [Student Services](#) chapter.

Departments and Programs

[Anthropology](#)

Programs

Bachelor of Arts

- [Anthropology BA](#)

Non Degree

- [Anthropology Minor](#)

Master of Arts

- [Anthropology, MA](#)

Chemistry

Programs

Bachelor of Science

- [Chemistry BS](#)
- [Chemistry BS, Biochemistry Emphasis](#)

Bachelor of Science/Master of Science

- [Chemistry BS/MS](#)

Certificate

- [Biochemistry Certificate](#)

Non Degree

- [Chemistry Minor](#)

Master of Science

- [Chemistry MS](#)

Communication

Programs

Bachelor of Arts

- [Communication BA](#)

Certificate

- [Mediation Undergraduate Certificate](#)
- [Public Relations Graduate Certificate](#)
- [Public Relations Undergraduate Certificate](#)
- [Technical and Professional Communication Undergraduate Certificate](#)

Non Degree

- [Communication Minor](#)

Master of Arts

- [Communication MA](#)

Economics

Programs

Bachelor of Arts

- [Economics BA](#)
- [Economics BA/Mathematics BS Dual Degree](#)

Non Degree

- [Economics Minor](#)

Master of Arts

- [Economics MA](#)
- [Economics MA/Public Administration MPA Dual Degree](#)

Master of Science/Master of Arts

- [Economics MA/Applied Mathematics MS Dual Degree, with a focus in Applied Statistics](#)

Master of Science in Finance/Master of Arts in Economics

- [Economics MA/Finance MS Dual Degree](#)

English

Programs

Bachelor of Arts

- [English BA](#)
- [English Writing BA](#)

Certificate

- [Teaching English Language Learners Graduate Certificate \(CTELL\)](#)

Non Degree

- [Creative Writing Minor](#)
- [Film Studies Minor](#)

- [Literature Minor](#)
- [Writing Minor](#)

Master of Arts

- [English MA](#)

Ethnic Studies

Programs

Bachelor of Arts

- [Ethnic Studies, BA](#)

Certificate

- [Cultural Diversity Studies Undergraduate Certificate](#)

Non Degree

- [Ethnic Studies Minor](#)

Geography and Environmental Sciences

Programs

Bachelor of Arts

- [Geography BA](#)

Certificate

- [Environmental Sciences Graduate Certificate](#)
- [Geographic Information Science Graduate Certificate](#)
- [Geographic Information Science Undergraduate Certificate](#)

Non Degree

- [Environmental Sciences Minor](#)
- [Geography Minor](#)
- [Geology Minor](#)
- [Urban and Regional Planning Minor](#)

Master of Science

- [Environmental Sciences MS](#)

Health and Behavioral Sciences

Programs

Bachelor of Arts

- [Public Health BA](#)

Bachelor of Science

- [Public Health BS](#)

Non Degree

- [Demography Minor](#)
- [Public Health Minor](#)

Doctor of Philosophy

- [Health and Behavioral Sciences PhD](#)

Health Humanities

Programs

Non Degree

- [Health Humanities Minor](#)

History

Programs

Bachelor of Arts

- [History BA](#)

Non Degree

- [History Minor](#)

Master of Arts

- [History MA](#)
- [Public History, MA in History](#)

Humanities, Master of

Programs

Master of Humanities

- [Humanities MH](#)

Individually Structured Major

Programs

Bachelor of Arts

- [Individually Structured Major BA](#)

Integrated Sciences, Master of

Programs

Master of Science

- [Integrated Sciences MIS](#)

Integrative Biology

Programs

Bachelor of Science

- [Biology BS](#)

Certificate

- [Biotechnology Certificate](#)

Non Degree

- [Biology Minor](#)

Master of Science

- [Biology MS](#)

Doctor of Philosophy

- [Integrative and Systems Biology, PhD](#)

Interdisciplinary Programs

No active programs available.

International Studies

Programs

Bachelor of Arts

- [International Studies BA](#)

Law Studies

Programs

Non Degree

- [Law Studies Minor](#)

Mathematical and Statistical Sciences

Programs

Bachelor of Science

- [Mathematics BS](#)

Certificate

- [Applied Statistics Graduate Certificate](#)
- [Applied Statistics Undergraduate Certificate](#)

Non Degree

- [Mathematics Minor](#)

Master of Science

- [Applied Mathematics, MS](#)

Doctor of Philosophy

- [Applied Mathematics, PhD](#)

Modern Languages

Programs

Bachelor of Arts

- [French BA](#)
- [Spanish BA](#)

Certificate

- [Applied German Language Skills Undergraduate Certificate](#)

Non Degree

- [Chinese Studies Minor](#)
- [French Minor](#)
- [German Studies Minor](#)
- [Spanish Minor](#)

Master of Arts

- [Spanish MA](#)

Philosophy

Programs

Bachelor of Arts

- [Philosophy BA](#)

Certificate

- [Ethics Undergraduate Certificate](#)

Non Degree

- [Ethics Minor](#)
- [Philosophy Minor](#)

Physics

Programs

Bachelor of Science

- [Physics BS](#)

Certificate

- [Scientific Foundations of Technical Innovation Certificate](#)

Non Degree

- [Astrophysics Minor](#)
- [Physics Minor](#)

Political Science

Programs

Bachelor of Arts

- [Political Science BA](#)

Certificate

- [Democracy and Social Movements Graduate Certificate](#)
- [Democracy and Social Movements Undergraduate Certificate](#)

Non Degree

- [Political Science Minor](#)

Master of Arts

- [New Directions, Political Science MA](#)
- [Political Science MA](#)
- [Political Science MA / Master of Business Administration \(MBA\) Dual Degree](#)

Psychology

Programs

Bachelor of Arts

- [Psychology BA](#)

Bachelor of Science

- [Psychology BS](#)

Non Degree

- [Psychology Minor](#)

Master of Arts

- [Psychology MA](#)

Doctor of Philosophy

- [Psychology, Clinical Health Psychology PhD](#)

Religious Studies

Programs

Non Degree

- [Religious Studies Minor](#)

Social Justice

Programs

Non Degree

- [Social Justice Minor](#)

Social Science, Master of

Programs

Master of Social Science

- [Social Science MSS](#)

Sociology

Programs

Bachelor of Arts

- [Sociology BA](#)

Non Degree

- [Sociology Minor](#)

Master of Arts

- [Sociology MA](#)

Sustainability

Programs

Non Degree

- [Sustainability Minor](#)

Women's and Gender Studies

Programs

Certificate

- [Women's and Gender Studies Graduate Certificate](#)

Non Degree

- [Women's and Gender Studies Minor](#)

School of Public Affairs

[Complete course list for the School of Public Affairs](#)

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Associate Dean: Kelly Hupfeld

Associate Dean, Colorado Springs: Teresa Schwartz

Assistant Dean, Denver: Jeanne Paradeis

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spa@ucdenver.edu

Application Deadlines

Undergraduate Deadlines

For fall semester—July 22

For spring semester—December 1

For summer semester—May 3

Masters Program Deadlines

	Preferred Deadline	Final Deadline
<i>Fall</i>	March 15	August 1
<i>Spring</i>	October 15	December 1
<i>Summer</i>	March 15	May 1

PhD Program Deadlines

Fall admission only -- February 1

Please note: deadlines for international students may vary. Check with the Office of International Admissions for more information.

About the School of Public Affairs

Graduates of the School of Public Affairs (SPA) are prepared to **lead** the field, **solve** pressing social issues and **change** communities for the better. Nationally ranked for excellence, SPA offers programs in multiple locations: on the CU Denver campus, at the CU Colorado Springs campus, on the Western Slope (Grand Junction) and online. The school offers four degrees: the bachelor of arts in criminal justice (BACJ), the master of public administration (MPA), the master of criminal justice (MCJ) and the PhD in public affairs. Qualified senior managers may elect to participate in the school's executive MPA option. SPA offers an accelerated MPA option as well as a variety of concentrations and certificates for students with diverse interests. Dual degrees are available in law, economics, public health, and urban and regional planning.

The School of Public Affairs is accredited by the National Association of Schools of Public Affairs and Administration.

The Mission of the School of Public Affairs

The School of Public Affairs prepares the next generation of leaders in public service and criminal justice professions to solve society's most pressing problems. Working together, faculty, staff and students also conduct research that improves the quality of life and informs policy making and management in the public and nonprofit sectors.

SPA Students

The School of Public Affairs attracts a dynamic mix of students, from undergraduates just beginning their public service careers to well-seasoned professionals already immersed in public or nonprofit management and policy. Students encompass a range of age and experience, and they represent the diversity of the Denver metropolitan area. SPA classrooms promote interaction among students, and the variety of backgrounds -- including domestic, international, pre-career and mid-career students -- enriches learning enormously.

Our graduates are leaders. They include state legislators and department heads, city managers and mayors, police chiefs and correctional administrators, policy analysts and advocates, nonprofit and for-profit executives, school superintendents, university presidents and faculty.

A Commitment to Community, to Public Service and to Problem Solving

The School of Public Affairs seeks students committed to public service. We prepare those students through a rigorous course of study that combines scholarship and theory while building practical analytical, management and policy making skills. As a school of public affairs, we believe we have a responsibility to engage with our community and serve the public good. SPA students have a wide variety of ways to get involved with and learn from the community, including working on community-centered research projects with faculty, learning from distinguished local practitioners in classes, serving in internships in government and nonprofit offices, working with our applied research centers, and participating in the numerous public affairs-related events SPA holds every semester.

The Buechner Institute for Governance

The Buechner Institute for Governance (BIG) was created in 2010 to strengthen the longstanding bond between the School of Public Affairs and our community. The Institute is named for Dr. John Buechner, a former University of Colorado president, local government scholar, faculty member in the School of Public Affairs, state legislator and holder of several local elected offices. Staff and affiliated faculty are dedicated to serving the Colorado community through research, evaluation, and policy analysis. BIG staff also provide assistance to the public and nonprofit sectors by facilitating community discussions and decision-making processes, and helping organizations improve through strategic planning and organizational evaluation and development. The Buechner Institute improves the quality of public and nonprofit leadership through specialized programs to enhance knowledge, teach skills and build lasting networks. Among those leadership programs are the **Denver Community Leadership Forum**, the **Rocky Mountain Leadership Program**, and Colorado's only **accredited Certified Public Manager** program. Finally, the Buechner Institute sponsors regular forums for civic discourse both in person and through printed material. *Solutions*, an online journalism initiative and a leading source for health policy information in Colorado, is one example of such a forum, as are the monthly Buechner Breakfasts focusing on timely issues of public importance.

The Buechner Institute is home to four centers that provide information and services in specialized topic areas. These include the Center for Education Policy Analysis, the Center on Reinventing Public Education-Denver, the Center for Public/Private Sector Cooperation, and the Center for Local Government Research and Training.

Other projects at SPA devoted to bridging the gap between academia and the community include the Center on Domestic Violence and The Wirth Chair in Sustainable Development.

Departments and Programs

Programs

Bachelor of Arts

- [Criminal Justice BA](#)

Bachelor of Arts/Master of Criminal Justice

- [Criminal Justice BA/MCJ](#)

Bachelor of Arts/Master of Public Administration

- [Public Affairs BA/MPA](#)

Certificate

- [Domestic Violence Concentration/Graduate Certificate](#)
- [Emergency Management and Homeland Security Concentration/Graduate Certificate](#)
- [Environmental Policy, Management and Law Graduate Certificate](#)
- [Interpersonal Violence and Health Care Graduate Certificate](#)
- [Local Government Concentration and Graduate Certificate](#)
- [Nonprofit Management Graduate Certificate](#)

Non Degree

- [Criminal Justice Minor](#)

Master of Criminal Justice

- [Criminal Justice MCJ](#)

Master of Public Administration

- [Public Administration MPA](#)

Master of Public Administration/Dual Degree

- [Public Administration MPA/JD](#)
- [Public Administration/Criminal Justice MPA/MCJ](#)
- [Public Administration/Economics MPA/MA](#)
- [Public Administration/Public Health MPA/MPH](#)
- [Public Administration/Urban and Regional Planning MPA/MURP](#)

Doctor of Philosophy

- [Public Affairs PhD](#)

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PROGRAMS

Undergraduate Areas of Study

Accounting Emphasis BS in Business Administration

Program Director: Michael Roberts

Telephone: 303-315-8460

E-mail: Michael.Roberts@ucdenver.edu

Accounting courses are offered in several fields of professional accountancy at the intermediate, advanced and graduate levels. They provide preparation for practice in one or more of the following fields:

Auditing
Financial Accounting
Financial Management
Management Control Systems
Managerial Accounting
Tax Accounting
Teaching and Research

In all of these fields a thorough knowledge of the social, legal, economic and political environment is needed. A high degree of analytical ability and communication skill is indispensable. A grade of *C* must be earned in all accounting courses to qualify for graduation.

Courses in English composition, speech, ethics and logic are desirable. Courses in statistics and information systems, beyond the required business core courses, are highly recommended.

Required Courses

- ACCT 4054 - Accounting Systems and Data Processing
- ACCT 3220 - Intermediate Financial Accounting I
- ACCT 3230 - Intermediate Financial Accounting II
- ACCT 3320 - Intermediate Cost Accounting
- ACCT 4410 - Income Tax Accounting
- ACCT 4620 - Auditing
- ACCT free elective (4000 level) (3 semester hours) choose one course from the following:
 - ACCT 4240 - Advanced Financial Accounting
 - ACCT 4070 - Management Accounting
 - ACCT 4330 - Managerial Accounting Problems and Cases
 - ACCT 4370 - International Accounting
 - ACCT 4520 - Oil and Gas Accounting
 - ACCT 4780 - Accounting and Information Systems Processes and Controls
 - ACCT 4800 - Accounting for Government and Nonprofit Organizations
 - ACCT 4840 - Independent Study

- ACCT 4915 - Accounting for the Public Interest
- ACCT 4950 - Special Topics

Total: 21 Hours

Students planning to pursue accounting as a career may take more than the above required hours. Many students complete a total of 30 hours of accounting, often taking two accounting courses each semester in their junior and senior years. Students should work closely with the accounting faculty and business advisors in planning their accounting programs.

The accounting program offers several 4000/6000-level courses. Students with credit for a 4000-level course cannot receive credit for the corresponding 6000-level course. Graduate students should take 6000-level courses.

Accounting students often specialize in a particular topical area of accounting.

Financial Accounting

Recommended Electives

- ACCT 4240 - Advanced Financial Accounting
- ACCT 4800 - Accounting for Government and Nonprofit Organizations

Managerial Accounting

Recommended Electives

- ACCT 4330 - Managerial Accounting Problems and Cases
- ACCT 4800 - Accounting for Government and Nonprofit Organizations

Accounting and Information Systems (ACIS)

Within the accounting curriculum students can choose to add courses in information systems to complement their individual interests as well as prior education and work experiences.

Required Courses

- ACCT 4054 - Accounting Systems and Data Processing
- ACCT 3220 - Intermediate Financial Accounting I
- ACCT 3230 - Intermediate Financial Accounting II
- ACCT 3320 - Intermediate Cost Accounting
- ACCT 4410 - Income Tax Accounting
- ACCT 4620 - Auditing
- ACCT 4780 - Accounting and Information Systems Processes and Controls or
- ISMG 4780 - Accounting and Information Systems Processes and Controls

ISMG Electives

Choose two:

- ISMG 4500 - Database Management and Applications
- ISMG 4600 - Systems Analysis and Design
- ISMG 4900 - Project Management and Practice

Total: 27 Hours

To further specialize, consider a graduate accounting program. Graduate study in accounting is receiving increasing emphasis by professional organizations and employers. Students meeting admission requirements should consider continuing their education at the graduate level. Qualified undergraduates may petition for permission to take one or two graduate accounting courses as electives (e.g. ACCT 6800, Special Topics).

Anthropology BA

Students majoring in anthropology for the BA degree must declare such by the time they have completed 60 semester hours. Majors must complete a minimum of 40 semester hours in anthropology with a grade of C (2.0) or better in each course. At least 24 hours must be at the upper-division level and a minimum of 21 semester hours must be taken from CU Denver faculty. (Note that most upper-division courses have lower-division prerequisites.)

Program Requirements

Required Anthropology Courses

- ANTH 1302 - Introduction to Archaeology
- ANTH 1303 - Introduction to Biological Anthropology
- ANTH 2102 - Culture and the Human Experience
- ANTH 3101 - Foundations of Cultural Anthropology
- ANTH 3301 - World Prehistory
- ANTH 3512 - Human Evolution

Total: 20 Hours

Anthropology Electives

Recommended courses:

- ANTH 4050 - Quantitative Methods in Anthropology
- ANTH 4810 - Integrating Anthropology

Total (minimum): 20 Hours

Major Total: 40 Hours

Architecture BSArch

Program Director: Phil Gallegos

Office: CU Denver Building, 320AA

Telephone: 303-315-2083

E-mail: phil.gallegos@ucdenver.edu

The College of Architecture and Planning offers a Bachelor of Science in Architecture degree exclusively on the downtown Denver campus. The city of Denver provides a rich environment to explore a diverse historic and cultural world that includes multiple approaches to solving urban and building problems. The degree is a “pre-professional” degree, which will provide fast track entry into the accredited Master of Architecture degree that is required for licensure in the profession. This degree provides a scientific and liberal education in design theory of the built world and its practice. Our graduates will have significant grounding in the science of building and the practice of architecture in a rapidly evolving profession. Our educational goal is to engender active and creative making of architecture along with critical thinking skills. Our graduates will have employment options in entry level architectural practices or related fields of urban design, historic preservation, design-build, construction, and even urban planning; or the opportunity to enter any accredited graduate program in the country.

Program Requirements

Satisfaction of all the following:

CU Denver undergraduate core:	37 semester hours
Architecture core:	71 semester hours
General studies electives:	12 semester hours
Total:	120 semester hours

CU Denver Undergraduate Core Curriculum

The faculty of the College of Architecture and Planning, the Business School, the College of Engineering and Applied Science and the College of Liberal Arts and Sciences have established a core curriculum for undergraduate students. All undergraduate students are required to complete the undergraduate core curriculum independent of their college or major.

The undergraduate core curriculum for CU Denver is outlined in the CU Undergraduate Core and gtpATHWAYS Curriculum segment of the catalog. The core requirements for BS in Architecture students are specified in the section labeled “Specific Program Requirements- College of Architecture and Planning.”

The undergraduate core curriculum seeks to provide all baccalaureate students with basic intellectual competencies in English, mathematics, biological and physical sciences, behavioral sciences, social sciences, humanities and arts. Furthermore, the core curriculum promotes an awareness of cultural diversity and international perspective. The majority of the core curriculum is designed to be completed during a student’s freshman and sophomore years in order to provide the foundation for specific training in a student’s major discipline.

CORE REQUIREMENTS

Intellectual Competencies

- English, 6 semester hours
- Mathematics, 4 semester hours

Knowledge Areas, 21 semester hours total

- Biological and Physical Sciences, 9 semester hours
- Humanities, 3 semester hours
- Arts, 3 semester hours
- Behavioral Sciences, 3 semester hours
- Social Sciences, 3 semester hours

Cultural Diversity, 3 semester hours total

International Perspectives, 3 semester hours total

Total: 37 Hours

Foreign Language Proficiency

BS Architecture students are required to demonstrate a minimum level of proficiency in one foreign language. This requirement is met through completion of one of the following:

- A second year (level II) high school course with minimum grade of C- or 1.7
- A second semester level college course (1020) with a minimum grade of C- or 1.7
- Satisfactory proficiency testing. Contact the CU Denver Department of Modern Languages at 303-556-4893 for details

Architecture Core Curriculum

Design Studies

- ARCH 1110 - Introduction to Architecture
- ARCH 3110 - Design Studio II
- ARCH 3120 - Design Studio III
- ARCH 4110 - Design Studio IV
- ARCH 4120 - Design Studio V

Total: 27 Hours

Cultural Studies

- ARCH 1110 - Introduction to Architecture
- ARCH 2230 - Architectural History I
- ARCH 3230 - Architectural History II

Total: 9 Hours

Technical Studies

- ARCH 3130 - Construction Practices I
- ARCH 4440 - Construction Practices II
- ARCH 3330 - Building Systems I
- ARCH 4240 - Building Systems II
- ARCH 3340 - Theory of Structures I
- ARCH 4340 - Theory of Structures II

Total: 18 Hours

Architecture Electives

Total 17 Hours

Architecture Core Total: 71 Hours

Maximum Units per Term

The normal scholastic load of an undergraduate architecture student is 15 semester hours, with a maximum of 18 hours allowed during the fall/spring semesters and 12 hours allowed during the summer session. Hours carried concurrently in the Division of Continuing Education, University of Colorado Boulder, or the CU Denver Extended Studies Programs, whether in classes or through correspondence, are included in the student's term load.

Repeating Courses

A failed course (grade of F) may be repeated; however, the F will be included in the GPA and will appear on the transcript. Students must earn at least a C- grade in required architecture core courses. Architecture courses must be repeated if the student earns less than a C- grade.

Courses from Other Institutions

BS Architecture students must have the written approval of the BS Architecture director or undergraduate academic advisor to register for courses (excluding MSUD pooled courses) offered by other institutions, including other University of Colorado locations. Credit will not be given for courses taken without approval. Grades of C or better must be earned to receive the undergraduate bachelor degree credit. Generally, only non-architecture electives or lower-division, non-architecture requirements are acceptable for transfer from other institutions once a student has been admitted to the BS Architecture Program. Students who, after admission to the college, take more than 12 semester hours from another institution, must reapply for admission to the college as transfer students and must meet the current admission requirements.

Graduate-Level Courses

With prior written approval of the BS Architecture Director, students may take a maximum of 6 semester hours of graduate-level non-architecture elective credits. Students must earn grades of B or better in graduate courses to apply the credits toward BS Architecture degree requirements.

Pass/Fail

Only internships, independent studies and non-architecture elective courses may be taken pass/fail. Required architecture courses (including the campus core) may not be taken pass/fail. A maximum of 6 hours pass/fail credit may be applied toward the BS Architecture degree. Courses taken in excess of the maximum will not be applied toward degree credit. Pass/fail determination must be made within the posted deadlines (at census dates) and may not be rescinded (unless approved by the undergraduate committee).

Independent Study

Junior or senior architecture students desiring to work beyond regular course coverage may take variable credit courses (1–3 semester hours) as non-architecture electives under the direction of an instructor who approves the project, but the student must have the appropriate approval before registering. A maximum of 3 semester hours of independent study course work may be taken in any one semester; a maximum of 6 semester hours may be applied toward degree requirements. An independent study request form must be signed by the student, the instructor, the program director and the director of advising and admissions.

Graduation Requirements

Total Credits. The Bachelor of Science in Architecture degree requires a total of 120 semester hours.

Undergraduate Honors. Upon recommendation of the faculty, students who demonstrate superior scholarship are given special recognition at graduation. Students must achieve an overall University of Colorado GPA of 3.3 and a GPA of 3.5 in all architecture courses taken at the University of Colorado to be considered for cum laude. Those who achieve an overall University of Colorado GPA of 3.5 and a GPA of 3.7 in all architecture courses taken at the University of Colorado will be considered for magna cum laude. Those who achieve a 3.7 overall GPA and a 3.85 GPA in all architecture courses will be considered for summa cum laude.

Filing for Graduation. A senior audit is completed on all students who have completed 90 or more semester hours. Students must file an undergraduate candidacy form and diploma card and request a graduation evaluation prior to registering for their final semester. Failure to do so will delay graduation.

Bioengineering BS

The undergraduate program at CU Denver is a highly rigorous program that instills competencies in biomedical science, engineering and mathematics and biomedical design, while emphasizing the professional competencies of leadership, communication, presentation and critical problem solving. Our mission is to improve human health through the application of engineering principles, ideas, methods and inventions to solve important clinical problems. Bioengineering is a highly interdisciplinary field that brings together: (1) biological, chemical and physical sciences; (2) engineering and mathematics; and (3) clinical medicine. The undergraduate bioengineering program provides training at both the Denver campus (years 1 and 2) and the Anschutz Medical Campus (years 3 and 4). Additional program details are available on the Department of Bioengineering [website](#).

Students applying to the program must select pre-bioengineering (Pre-BIOE) as their “Field of Study” in the online application. If you are admitted to the Pre-BIOE program you will enroll in the core curriculum courses, which are offered at the Denver campus. Students in pre-bioengineering must apply to advance to major status in bioengineering. The earliest time period to apply for major status will be spring 2014 (specific deadline to be announced). Admittance to the major in bioengineering will be granted to students who have successfully completed all Pre-Bioengineering prerequisites and who meet the program’s selection criteria. All major courses will be taught at the Anschutz Medical Campus; note that these courses will not be available until fall 2015.

Graduates will be well-prepared for further education in graduate school, medical school or other advanced professional preparation. The department also offers a [master of science](#) (MS) and [doctor of philosophy](#) (PhD) degrees in bioengineering. Please [contact us](#) for advising.

Bioengineering BS Curriculum Description

The BS-BIOE degree comprises three core areas, supplemented by elective courses based on one of two tracks that the student chooses to pursue. The three core areas are: (1) the pre-bioengineering core; (2) the major bioengineering core; (3) the general education core. Together these three core areas and your specialty track will define your program.

Pre-Bioengineering Core (56 credit hours)

Students must complete all of these courses before they may apply for bioengineering major status. Credit for some of these courses may be achieved through high school Advanced Placement (AP) course work and exams.

Mathematics (16 credit hours)

- [MATH 1401 - Calculus I](#)
- [MATH 2411 - Calculus II](#)
- [MATH 2421 - Calculus III](#)
- [MATH 3195 - Linear Algebra and Differential Equations](#)

Biology (8 credit hours)

- [BIOL 2051 - General Biology I](#)
- [BIOL 2071 - General Biology Laboratory I](#)
- [BIOL 2061 - General Biology II](#)
- [BIOL 2081 - General Biology Laboratory II](#)

Chemistry (14 credit hours)

- [CHEM 2031 - General Chemistry I](#)
- [CHEM 2038 - General Chemistry Laboratory I](#)
- [CHEM 2061 - General Chemistry II](#)
- [CHEM 2068 - General Chemistry Laboratory II](#)
- [CHEM 3411 - Organic Chemistry I](#)
- [CHEM 3418 - Organic Chemistry Laboratory I](#)

Physics (10 credit hours)

- [PHYS 2311 - General Physics I: Calculus-Based](#)
- [PHYS 2321 - General Physics Lab I](#)
- [PHYS 2331 - General Physics II: Calculus-Based](#)
- [PHYS 2341 - General Physics Lab II](#)

Bioengineering (8 credit hours)

- [BIOE 1010 - Bioengineering Design and Prototyping I](#)
- [BIOE 1020 - Bioengineering Design and Prototyping II](#)
- BIOE 2010 - Bioengineering Research
BIOE 2020 - Computational Methods in Bioengineering

Major Bioengineering Core (36 credit hours)

Students admitted into the bioengineering major will undertake the major bioengineering core courses regardless of the track they choose. All BIOE major core classes will be taught at the Anschutz Medical Campus. These classes build upon pre-major courses and provide the next level of instruction in bioengineering. This instruction includes a year-long laboratory course, design experiences, and disciplinary subjects.

Bioengineering Track (12 credit hours)

At present, the BS BIOE contains three track specializations:

- (1) Biomedical Devices and Biomechanics
- (2) Imaging Instrumentation and Diagnostics
- (3) BS/MD Track (Track details available on the Department of Bioengineering [website](#))

Courses in these tracks will be taught at the Anschutz Medical Campus and expansion of specialties will grow with the department and recruitment of new faculty. Our tracks will provide students with a more advanced understanding of specialized areas in

Bioengineering. Students must take a **minimum of 12 credit hours** of the courses in these tracks. **A minimum of 6 credit hours must be satisfied by courses offered by the Department of Bioengineering (BIOE-XXXX), and a minimum of 6 credit hours must be satisfied by courses at the 3000-level or above.**

General Education Core

Students must satisfy the core curriculum requirements including **8 courses (24 credit hours) distinct from the math and science requirements**, as described in the [CU Denver Undergraduate Core Curriculum](#). These core curriculum courses will be selected from the Intellectual Competencies, Knowledge Areas, International Perspectives and Cultural Diversity areas. BIOE students may receive college credit for several general education core courses through Advanced Placement.

Total: 128 hours

Biology BS

Biology students must declare their major by the time they have taken 60 semester hours. A minimum of 36 hours of biology must be completed, of which 18 hours are at the upper-division level and taken in residence with CU Denver Downtown Campus biology faculty. All biology courses applied to the undergraduate biology major must be completed within 10 years of graduation. To ensure a proper background for the study of biology, majors are required to pass 31-33 hours of course work in ancillary disciplines. A GPA of 2.0 must be attained in BIOL coursework. The following biology and ancillary courses are required and must be completed with a letter grade of C- (1.7) or higher:

Requirements for the Major

Biology Core Courses (18 Credits)

- BIOL 2051 - General Biology I
- BIOL 2071 - General Biology Laboratory I
- BIOL 2061 - General Biology II
- BIOL 2081 - General Biology Laboratory II
- BIOL 3411 - Principles of Ecology
- -OR- BIOL 3412 - Fundamentals of Applied Ecology
- BIOL 3611 - General Cell Biology
- BIOL 3832 - General Genetics

Upper Division Biology Electives (18 Credits)

Biology elective courses (3000 or 4000 level)

One upper division biology lab course. Choose one of the following:

- BIOL 3225 - Human Physiology
- BIOL 3244 - Human Anatomy
- BIOL 3654 - General Microbiology
- BIOL 4335 - Plant Science
- BIOL 3413 - Ecology Laboratory
- BIOL 3612 - Cell Biology Laboratory
- BIOL 4125 - Molecular Biology Laboratory
- BIOL 4345 - Flora of Colorado
- BIOL 4640 - Mammalogy
- BIOL 4644 - Advanced Human Anatomy Laboratory
- BIOL 4910 - Field Studies

11-13 credits to create a total of 36 BIOL credit hours for the Major.

Four hours in biochemistry (CHEM 3810-4 or both CHEM 4810-4 & 4820-3) may be counted as biology elective hours, if not taken in place of second semester organic chemistry.

BIOL 3411 and 3412 cannot apply as electives.

A maximum of six hours of Independent Study (BIOL 3840 or 4840) and Internship (BIOL 3939), including a maximum of three credits of BIOL 3939, may be counted toward the upper-division biology electives.

3 credits of a 4000 level BIOL course taken from UCD Biology Faculty

BIOL 4840 and 4990 will not apply.

Ancillary Core Courses

- CHEM 2031 - General Chemistry I
- CHEM 2038 - General Chemistry Laboratory I
- CHEM 2061 - General Chemistry II
- CHEM 2068 - General Chemistry Laboratory II
- CHEM 3411 - Organic Chemistry I
- CHEM 3421 - Organic Chemistry II
- -OR- CHEM 3810 - Biochemistry
- PHYS 2010 - College Physics I
- PHYS 2030 - College Physics Lab I
- PHYS 2020 - College Physics II
- PHYS 2040 - College Physics Lab II
- MATH 1401 - Calculus I
- -OR- MATH 1110 - College Algebra

Plus one of the following:

- BIOL 3763 - Biostatistics
- MATH 4830 - Applied Statistics

Total Ancillary Core: 31-33 Hours

The following courses will **not** count toward the BS in biology:

- BIOL 1136 - Human Biology
- BIOL 1550 - Basic Biology: Ecology and the Diversity of Life
- BIOL 1560 - Basic Biology: From Cells to Organisms

Degree Total: 36 Hours Biology + 31-33 Hours Ancillary

Business Administration Core Requirements BS

Undergraduate Core Requirements For BS In Business Administration

Intellectual Competencies

English

- ENGL 1020 - Core Composition I
- ENGL 2030 - Core Composition II

Total: 6 Hours

Math

Choose one:

- MATH 1070 - Algebra for Social Sciences and Business
- MATH 1110 - College Algebra

Total: 3 Hours

Knowledge Areas

Biological and Physical Sciences

Choose two; one course with a laboratory is required:

- ANTH 1303 - Introduction to Biological Anthropology
- BIOL 1550 - Basic Biology: Ecology and the Diversity of Life
- BIOL 1560 - Basic Biology: From Cells to Organisms
- BIOL 2051 - General Biology I and
- BIOL 2071 - General Biology Laboratory I
- BIOL 2061 - General Biology II and
- BIOL 2081 - General Biology Laboratory II
- CHEM 1474 - Core Chemistry: Chemistry For the Consumer
- CHEM 2031 - General Chemistry I and
- CHEM 2038 - General Chemistry Laboratory I
- CHEM 2061 - General Chemistry II and
- CHEM 2068 - General Chemistry Laboratory II
- ENVS 1042 - Introduction to Environmental Sciences
- GEOG 1202 - Introduction to Physical Geography
- GEOL 1072 - Physical Geology: Surface Processes
- GEOL 1082 - Physical Geology: Internal Processes
- PHYS 1052 - General Astronomy I
- PHYS 1100 - Foundations of Physics
- PHYS 2010 - College Physics I and

- PHYS 2030 - College Physics Lab I
- PHYS 2020 - College Physics II and
- PHYS 2040 - College Physics Lab II
- PSYC 2220 - Biological Basis of Behavior

Total: 7-8 Hours

Humanities

Choose one:

- CHIN 1000 - China and the Chinese
- ENGL 1601 - Telling Tales: Narrative Art in Literature and Film
- ENGL 2600 - Great Works in British and American Literature
- ETST 2155 - African American History
- FREN 1000 - Introduction to Cultures of the French- Speaking World
- GRMN 1000 - Germany and the Germans
- HIST 1361 - U.S. History to 1876
- HIST 1362 - U.S. History Since 1876
- HIST 1381 - Paths to the Present
- PHIL 1012 - Introduction to Philosophy: Relationship of the Individual to the World
- PHIL 1020 - Introduction to Ethics and Society: The Person and the Community
- PHIL 2441 - Logic and Language
- RLST 1610 - Introduction to Religious Studies
- RLST 2660 - World Religions
- SPAN 1000 - Introduction to Cultures of the Spanish Speaking World

Total: 3 Hours

Arts

Choose one:

- FINE 1001 - Introduction to Art
- PMUS 1001 - Music Appreciation
- THTR 1001 - Introduction to Theatre & Arts in the Community

Total: 3 Hours

Behavioral Sciences

Choose one:

- ANTH 1302 - Introduction to Archaeology
- ANTH 2102 - Culture and the Human Experience
- COMM 1011 - Fundamentals of Communication
- COMM 1021 - Introduction to Media Studies

- PSYC 1000 - Introduction to Psychology I
- PSYC 1005 - Introduction to Psychology II

Total: 3 Hours

Social Sciences

- ECON 2012 - Principles of Economics: Macroeconomics

Total: 3 Hours

Cultural Diversity

Choose one:

- ANTH 3142 - Cultural Diversity in the Modern World
- COMM 3271 - Communication and Diversity
- ECON 3100 - Economics of Race and Gender
- ENGR 3400 - Technology and Culture
- ETST 3704 - Culture, Racism and Alienation
- ETST 3794 - Ethnic Diversity in American Literature
- HIST 3345 - Immigration and Ethnicity in American History
- MGMT 4100 - Managing Cultural Diversity
- PHIL 3500 - Ideology and Culture: Racism and Sexism
- PSCI 3034 - Race, Gender, Law and Public Policy
- PSCI 3035 - Political Movements: Race and Gender
- PSYC 4485 - Psychology of Cultural Diversity
- SOCY 3020 - Race and Ethnicity in the U.S.
- RLST 4000 - Religion and Cultural Diversity
- THTR 3611 - Drama of Diversity

Total: 3 Hours

International Perspectives

Choose one:

- ENGR 3600 - International Dimensions of Technology and Culture
- PSCI 3022 - Introduction to Comparative Politics
- PSCI 3042 - Introduction to International Relations

Total: 3 Hours

Core Total: 34-35 Hours

Business School Specific Graduation Requirements

- COMM 2050 - Business and Professional Speaking

- ECON 2022 - Principles of Economics: Microeconomics
- ENGL 3170 - Business Writing ¹
- MATH 1080 - Polynomial Calculus ^{2,3}

A grade of 'C' or better must be earned to fulfill this requirement.

Experiential Learning - Can be satisfied by: Internship, Project based course, Study Abroad

Notes:

1. Students are strongly encouraged to take ENGL 2030 from the university core requirements before completing ENGL 3170.
2. The required sequence of MATH 1070 or MATH 1110 from the university core requirements and MATH 1080 may be satisfied by a 6-semester-hour calculus sequence instead. A grade of C- or better in any of these courses is required to fulfill this requirement.
3. MATH 1080 grade must be a C or better to fulfill this requirement.

Business Core

A grade C or better must be earned in each of the business core courses in order to (a) enroll in a course for which it is a prerequisite and (b) graduate.

Students should complete the business core in the order listed below:

- DSCI 2010 - Business Statistics
- ACCT 2200 - Financial Accounting and Financial Statement Analysis
- ACCT 2220 - Managerial Accounting and Professional Issues
- ISMG 2050 - Introduction to Business Problem Solving
- BLAW 3000 - Legal and Ethical Environments of Business I
- MGMT 3000 - Managing Individuals and Teams
- MKTG 3000 - Principles of Marketing
- FNCE 3000 - Principles of Finance
- ISMG 3000 - Technology In Business
- DSCI 3000 - Operations Management
- MGMT 4500 - Business Policy and Strategic Management

Total: 33 Hours

International Studies

International Business

Choose one:

- FNCE 4370 - International Financial Management
- MGMT 4400 - Environments of International Business
- MKTG 4200 - International Marketing
- MKTG 4220 - Asian Business Development and Marketing
- MKTG 4580 - International Transportation

Total: 3 Hours

Other courses in international business may be offered periodically that satisfy the international studies requirement.

Area Of Emphasis

Business majors must complete the prescribed courses in an area of emphasis comprising a minimum of 15 semester hours taken at CU Denver. Business students are advised to select an area of emphasis prior to completing the business core, and are required to declare a major area of emphasis by the time they have accumulated 60 to 75 semester hours. The courses in the area of emphasis are completed in the junior and senior years after completing the business core. A minimum GPA of 2.0 is required for courses in the area of emphasis.

The areas of emphasis include accounting, finance, financial management, human resources management, information systems, international business, management or marketing. The specific requirements for these areas of emphasis are described in subsequent sections.

Experiential Learning

Business students must earn 3 semester hours of credit in an approved experiential learning course. Experiences that may qualify for experiential credit include internships, project-based courses, business courses taken at a foreign university, study abroad programs.

Experiential learning is a graduation requirement for students beginning their bachelor degree program at any institution in summer 2007 or later. Students beginning their bachelor degree program prior to summer 2007 are not required to meet the experiential learning requirement. Students may petition to waive the experiential learning requirement based on hardship or substantial work experience.

Other Courses

Students may choose other courses freely, subject to the following general rules:

- only nonremedial (college-level, as determined by the Business School) courses will count toward the BS degree
- all students receiving the BS degree in business must take at least 48 upper-division semester hours, of which 42 semester hours must be upper-division business credit (excluding the economics core courses).
- students must complete 30 hours of actual business course work, including the area of emphasis, after acceptance to the Business School
- at least 50 percent of the business credits applied to the degree must be taken at CU Denver

Guidelines for Elective Credits. Elective credits should be selected carefully because not all classes are acceptable. Generally, to be acceptable, electives must be taught by regular University of Colorado faculty, must have a form of assessment, such as a term paper and/or

examinations, and must be regular classroom-type classes. Course coverage must be college level, not repetitious of other work applied toward the degree, must be academic as opposed to vocational or technical and must be part of the regular university offerings.

Specifically, the school *will* accept:

- a maximum of 6 semester hours of the theory of physical education, theory of recreation and/or theory of dance
- a maximum of 6 semester hours of approved independent study, internships, experimental studies, choir, band and/or music lessons, art lessons
- a maximum of 12 semester hours of advanced ROTC, providing the student is enrolled in the program and completes the total program

The school will *not* accept: activity physical education classes, recreation, workshops, orientations, dance, teaching methods, practicums and courses reviewing basic skills in computers, English composition, mathematics and chemistry.

Chemistry BS

Requirements for Major

Students must declare their major by the time they have completed 60 semester hours. The chemistry major requires 45 semester hours in chemistry. Transfer students must take at least 14 upper-division chemistry hours, including CHEM 4128, 4518 or 4538, in residency at CU Denver. A student who has declared a chemistry major at CU Denver may not take additional chemistry courses outside of the department for the purpose of applying those credits toward meeting the requirements of the major without prior written approval of the undergraduate advisor. Normally, no more than 3 additional hours of transfer credits will be allowed. The minimum grade in chemistry courses is C- (1.7) and a minimum chemistry GPA of 2.0 is required in chemistry and ancillary required courses. All majors must successfully complete the following core:

TRADITIONAL CHEMISTRY MAJOR

Required Chemistry Courses

- CHEM 2031 - General Chemistry I
- CHEM 2038 - General Chemistry Laboratory I
- CHEM 2061 - General Chemistry II
- CHEM 2068 - General Chemistry Laboratory II
- CHEM 3011 - Inorganic Chemistry
- CHEM 3111 - Analytical Chemistry
- CHEM 3118 - Analytical Chemistry Laboratory
- CHEM 3411 - Organic Chemistry I
- -OR-
- CHEM 3481 - Honors Organic Chemistry I
- CHEM 3418 - Organic Chemistry Laboratory I
- -OR-
- CHEM 3488 - Honors Organic Chemistry Laboratory I
- CHEM 3421 - Organic Chemistry II
- -OR-
- CHEM 3491 - Honors Organic Chemistry II
- CHEM 3498 - Honors Organic Chemistry Laboratory II
- CHEM 4121 - Instrumental Analysis
- CHEM 4128 - Instrumental Analysis Laboratory
- CHEM 4511 - Physical Chemistry I
- CHEM 4518 - Physical Chemistry Laboratory I
- CHEM 4521 - Physical Chemistry II
- CHEM 4538 - Physical Chemistry II Laboratory

And one of the following two courses:

- CHEM 3018 - Inorganic Chemistry Laboratory

- CHEM 4828 - Biochemistry Lab

Total Required Courses: 45 Hours

Required Ancillary Courses

- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 3511 - Mathematics of Chemistry
- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I
- PHYS 2331 - General Physics II: Calculus-Based
- PHYS 2341 - General Physics Lab II

Total Required Ancillary Courses : 22 Hours

Recommended Electives

- CHEM 3018 - Inorganic Chemistry Laboratory
- CHEM 3810 - Biochemistry
- OR-
- CHEM 4810 - General Biochemistry I
- CHEM 4700 - Environmental Chemistry
- CHEM 4820 - General Biochemistry II
- Any CHEM 5000-level lecture class (3-4 semester hours)

Total Electives: 14-16 Hours

Chemistry Major (Traditional) Total: 67 Hours required

Students interested in the traditional chemistry major should consult regularly with a chemistry advisor. A complete description of the chemistry major's program may be obtained in the Department of Chemistry office or department website.

Qualified majors are strongly urged to participate in independent study or departmental honors programs.

Students planning chemistry as a career should be familiar with the recommendations of the American Chemical Society for the professional training of chemists. For ACS certification, students following the traditional BS program of study are required to take inorganic laboratory (CHEM 3018), at least one semester of biochemistry (CHEM 3810 or CHEM 4810), and one additional 3- or 4-credit upper-division chemistry course in addition to the curriculum outlined above. No course with a grade of less than C (2.0) can be applied toward ACS certification. Students should check with a chemistry advisor for details. CU Denver maintains an ACS chapter of student affiliates.

Chemistry BS, Biochemistry Emphasis

Requirements for Major

Students must declare their major by the time they have completed 60 semester hours. The chemistry major with a biochemistry emphasis requires 44-45 semester hours in chemistry. Transfer students must take at least 14 upper-division chemistry hours, including CHEM 4518, in residency at CU Denver. A student who has declared a chemistry major at CU Denver may not take additional chemistry courses outside of the department for the purpose of applying those credits toward meeting the requirements of the major without prior written approval of the undergraduate advisor. Normally, no more than 3 additional hours of transfer credits will be allowed. The minimum grade in chemistry courses is C- (1.7) and a minimum chemistry GPA of 2.0 is required in chemistry and ancillary required courses. All majors must successfully complete the following core:

Required Chemistry Courses

- CHEM 2031 - General Chemistry I
- -OR- CHEM 2081 - Honors General Chemistry I
- CHEM 2038 - General Chemistry Laboratory I
- -OR- CHEM 2088 - Honors General Chemistry I Laboratory
- CHEM 2061 - General Chemistry II
- -OR- CHEM 2091 - Honors General Chemistry II Lecture
- CHEM 2068 - General Chemistry Laboratory II
- -OR- CHEM 2098 - Honors General Chemistry II Laboratory
- CHEM 3111 - Analytical Chemistry
- CHEM 3118 - Analytical Chemistry Laboratory
- CHEM 3411 - Organic Chemistry I
- -OR- CHEM 3481 - Honors Organic Chemistry I
- CHEM 3418 - Organic Chemistry Laboratory I
- -OR-
- CHEM 3488 - Honors Organic Chemistry Laboratory I
- CHEM 3421 - Organic Chemistry II
- -OR- CHEM 3491 - Honors Organic Chemistry II
- CHEM 3498 - Honors Organic Chemistry Laboratory II
- CHEM 4511 - Physical Chemistry I
- CHEM 4518 - Physical Chemistry Laboratory I
- CHEM 4521 - Physical Chemistry II
- CHEM 4810 - General Biochemistry I
- CHEM 4820 - General Biochemistry II
- CHEM 4828 - Biochemistry Lab

Total Required Courses: 41-42 Hours

Required Ancillary Courses

- BIOL 2051 - General Biology I
- BIOL 2071 - General Biology Laboratory I
- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 3511 - Mathematics of Chemistry
- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I
- PHYS 2331 - General Physics II: Calculus-Based
- PHYS 2341 - General Physics Lab II

Total Required Ancillary Courses: 26 Hours

Required Electives

Any 3000-level or higher CHEM course except CHEM 3810 (Biochemistry) or 3428 (Organic Chemistry II laboratory). (*Note:* some of these courses may require additional prerequisites)
May also choose from the following biology courses:

- BIOL 3124 - Introduction to Molecular Biology
- BIOL 3611 - General Cell Biology
- BIOL 3621 - Introduction to Immunology
- BIOL 3654 - General Microbiology

Total Required Electives: 3 Hours

Chemistry Major (Biochemistry Emphasis) Total: 70-71 Hours

Students interested in the chemistry major with the biochemistry emphasis should consult regularly with a chemistry advisor. A complete description of the program may be obtained in the Department of Chemistry office or [department website](#).

Qualified majors are strongly urged to participate in independent study or departmental honors programs.

Students planning chemistry as a career should be familiar with the recommendations of the American Chemical Society for the professional training of chemists. For ACS certification, students following the biochemistry emphasis BS program are required to take inorganic lecture (CHEM 3011), inorganic laboratory (CHEM 3018), and physical chemistry II laboratory (CHEM 4538) in addition to the curriculum outlined above. No course with a grade of less than C (2.0) can be applied toward ACS certification. Students should check with a chemistry advisor for details. CU Denver maintains an ACS chapter of student affiliates.

Civil Engineering BS

Program Objectives

The objectives of the bachelor of science in civil engineering program are to produce graduates who:

- are able to perform the technical analyses and design tasks of entry-level civil engineers
- can successfully work toward professional engineering licensure
- communicate effectively, both orally and in writing
- understand the importance of leadership skills, team building and ethical practice
- value lifelong learning and improvement through graduate degrees or professional study
- appreciate the importance of community involvement and social contribution civil engineers are dedicated to improving our living environment

Civil engineering offers an interesting and challenging career in the design, construction, and maintenance of buildings and urban infrastructure; in transportation systems, including highways, airports, rapid transit lines, railroads, and harbor facilities; in the development of water resources, including reservoirs for storage, canals for irrigation, dams for power generation, stormwater management for drainage, groundwater recharge for contamination prevention, wastewater treatment for environmental protection, and water purification for drinking purposes; in the construction industry; including foundations, bridges, concrete and steel structures, in problems concerned with environmental preservation; and in the sustainable development of cities. In preparing for work in such a broad field, the civil engineering student studies mathematics, basic science, communication, social science and humanities, engineering science and civil engineering design. CU Denver's civil engineering graduates usually find their first professional employment with consulting engineering firms, government agencies and various industries.

Typical Curriculum for BS (Civil Engineering)

Freshman Year

First Semester

- CHEM 1130 - Engineering General Chemistry (*see note 1*)
- ENGL 1020 - Core Composition I
- MATH 1401 - Calculus I
Core Curriculum Elective (*see note 2*) (3 semester hours)

Total: 15 Hours

Second Semester

- CVEN 1025 - Civil Engineering Graphics and Computer Aided Design
- CVEN 2212 - Plane Surveying

- ENGL 2030 - Core Composition II
- MATH 2411 - Calculus II
- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I

Total: 18 Hours

Sophomore Year

First Semester

- CVEN 2121 - Analytical Mechanics I
- CVEN 2200 - Computing Methods in Civil Engineering
- MATH 2421 - Calculus III
- PHYS 2331 - General Physics II: Calculus-Based
Core Curriculum Elective (*see note 2*) (3 semester hours)

Total: 17 Hours

Second Semester

- CVEN 3121 - Mechanics of Materials
- CVEN 3141 - Introduction to Structural Materials
- CVEN 3401 - Introduction to Environmental Engineering
- CVEN 4780 - Engineering Geology **OR**
- GEOL 1072 - Physical Geology: Surface Processes **OR**
- MATH 3800 - Probability and Statistics for Engineers
- MATH 3195 - Linear Algebra and Differential Equations

Total: 15 Hours

Junior Year

First Semester

- CVEN 3111 - Analytical Mechanics II
- CVEN 3313 - Theoretical Fluid Mechanics
- CVEN 3505 - Structural Analysis
- CVEN 3602 - Transportation Engineering
Core Curriculum Elective (*see note 2*) (3 semester hours)

Total: 15 Hours

Second Semester

- CVEN 3323 - Applied Fluid Mechanics
- CVEN 3414 - Design of Water and Wastewater Systems

- CVEN 3708 - Introduction to Geotechnical Engineering
- CVEN 4718 - Intermediate Soils Engineering
- MECH 3012 - Thermodynamics
Core Curriculum Elective (*see note 2*) (3 semester hours)

Total: 17 Hours

Senior Year

First Semester

- CVEN 4000 - Senior Seminar
- ELEC 3030 - Electric Circuits and Systems
Civil Engineering Design Electives (*see note 3*) (6 semester hours)
Upper-level Science, Math or Engineering Electives (*see note 4*) (6 semester hours)
Core Curriculum Elective (*see note 2*) (3 semester hours)

Total: 18 Hours

Second Semester

- Civil Engineering Design Electives (*see note 3*) (6 semester hours)
- CVEN 4067 - Senior Design Projects
Core Curriculum Elective (*see note 2*) (3 semester hours)
Science, Math or Engineering Electives (*see note 4*) (3 semester hours)

Total: 15 Hours

Program Total: 130 Hours

1. Or CHEM 2031 and CHEM 2038, which are required for students wishing to take CHEM 2061 and CHEM 2068 as general electives.
2. The communication, humanities and social science electives selected by the student and approved by his/her advisor must satisfy the college core curriculum .
3. Students must satisfactorily complete four of the six civil engineering design courses listed below:

CVEN 4427 Storm Water System Design

CVEN 4565 Timber Structure Design

CVEN 4575 Structural Steel Design

CVEN 4585 Reinforced Concrete Design

CVEN 4602 Highway Engineering

CVEN 4738 Intermediate Foundation Engineering

4. Science, math or engineering electives. The purpose of the electives is to extend the student's knowledge beyond the basic civil engineering requirements. Electives chosen should come from the areas of engineering, mathematics, chemistry, biology, physics or geology. In the case of mathematics, chemistry, physics or geology, the elective must be of higher level than courses in this field required by the civil engineering program. Suggested courses are CVEN 4077, CVEN 4087, CVEN design courses or any 5000-level CVEN course.

Communication BA

Requirements for Admission

Undergraduates must declare their intention to major in communication by the time they have completed 60 semester hours; they must apply to the communication department to be accepted as majors.

Program Requirements

The communication major requires that students take a total of 39 hours of course work in communication, 18 of which must be taken in residence at CU Denver. At least 21 of the 39 hours must be upper division. Students must achieve a grade of *C* (2.0) or higher to receive credit for a course in the major and must maintain a minimum GPA of *C+* (2.75) in their communication courses.

Students must complete 12 credits (4 courses) from the menu of core classes; they must complete at least 24 credits (8 classes) from the menu of electives; they must also complete at least 3 credits (1 class) from the menu of “exit” classes.

Core Courses

- COMM 1011 - Fundamentals of Communication
- COMM 1021 - Introduction to Media Studies
- COMM 2020 - Communication, Citizenship, and Social Justice
- COMM 2050 - Business and Professional Speaking
- -OR- COMM 1001 - Presentational Speaking

Total: 12 Hours

Electives

Skill Area Electives

In addition to the four communication core courses, students are required to complete at least 24 credits (8 classes) from among the department’s six pathways, which include community service and public affairs, legal communication, health communication, media studies, organizational communication and public relations, and political communication and government. Students may use the pathways to help craft a program of study, but *they are not required to do so*; the pathways are simply suggestions for ways to organize courses that will prepare students for careers.

Total: 24 Hours

Upper Division Elective

“Exit” Course—majors are required to complete at least one “exit” class that concludes their course of study with a special experience focused on high-level research, community

engagement, international travel or workplace experience. Students may choose from the following courses:

- COMM 3939 - Internship
- COMM 4040 - Communication, Prisons, and Social Justice
- COMM 4282 - Environmental Communication
- COMM 4500 - Health Communication
- COMM 4640 - Advanced Public Relations
- COMM 4688 - Senior Seminar: Transitioning from College to Career
- COMM 4700 - Writing Practicum
- COMM 4995 - Travel Study

Total: 3 Hours

Major Total: 39 Hours

For more information, see the faculty advisor and the [department's website](#).

Computer Science BS

Program Objectives

The educational objectives of the computer science undergraduate program are to produce graduates who:

- Advance professionally as productive, practicing professionals in computer science and related careers through the continued development of their expertise and skills.
- Further develop their knowledge, skill set, and career opportunities through graduate education and/or professional studies.
- Function effectively as part of a team to succeed in their professional careers.

Measurable Outcomes

The BS-CS program must enable its students to attain, by the time of graduation:

- a.) An ability to apply knowledge of computing and mathematics appropriate to the discipline
- b.) An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution
- c.) An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs
- d.) An ability to function effectively on teams to accomplish a common goal
- e.) An understanding of professional, ethical, legal, security and social issues and responsibilities
- f.) An ability to communicate effectively with a range of audiences
- g.) An ability to analyze the local and global impact of computing on individuals, organizations, and society
- h.) Recognition of the need for and an ability to engage in continuing professional development
- i.) An ability to use current techniques, skills, and tools necessary for computing practice
- j.) An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the trade-offs involved in design choices. [CS]
- k.) An ability to apply design and development principles in the construction of software systems of varying complexity. [CS]

Typical Curriculum for BS in Computer Science and Engineering

For up-to-date information, please refer to the current undergraduate handbook from the [CSE department website](#) under Degree Programs.

Freshman Year

First Semester

- [CSCI 1410 - Fundamentals of Computing](#)
- [CSCI 1411 - Fundamentals of Computing Laboratory](#)
- [CSCI 1510 - Logic Design](#)
- [ENGL 1020 - Core Composition I](#) (see note 1)
- [MATH 1401 - Calculus I](#)
- Core Curriculum Elective. Semester Hours: 3 (see note 1)

Total: 17 Hours

Second Semester

- [CSCI 2312 - Intermediate Programming](#)
- [ENGL 2030 - Core Composition II](#)
- [MATH 2411 - Calculus II](#)
- [PHYS 2311 - General Physics I: Calculus-Based](#)
- [PHYS 2321 - General Physics Lab I](#)

Total: 15 Hours

Sophomore Year

First Semester

- [CSCI 2421 - Data Structures and Program Design](#)
- [CSCI 2511 - Discrete Structures](#)
- [CSCI 2525 - Assembly Language and Computer Organization](#)
- [PHYS 2331 - General Physics II: Calculus-Based](#)
- [PHYS 2341 - General Physics Lab II](#)
- Core Curriculum Elective Semester Hours: 3 (see note1)

Total: 17 Hours

Second Semester

- [CSCI 2132 - Circuits and Electronics](#)
- [CSCI 3287 - Database System Concepts](#)
- [CSCI 3320 - Advanced Programming](#)
- [CSCI 3412 - Algorithms](#)
- Core Curriculum Elective Semester Hours: 3 (see note 1)

Total: 15 Hours

Junior Year

First Semester

- [CSCI 3415 - Principles of Programming Languages](#)
- [CSCI 3453 - Operating System Concepts](#)
- [CSCI 3511 - Hardware-Software Interface](#)
- [CSCI 3560 - Probability and Computing](#)
- CSCI Tech Elective. Semester Hours: 3
- Core Curriculum Elective Semester Hours: 3 (see note 1)

Total: 18 Hours

Second Semester

- [CSCI 3508 - Introduction to Software Engineering](#)
- [CSCI 4287 - Embedded Systems Programming](#)
- [MATH 3195 - Linear Algebra and Differential Equations](#)
- CSCI Tech Elective. Semester Hours: 3

Core Curriculum Elective. Semester Hours: 3 (see note 1)

Total: 16 Hours

Senior Year

First Semester

- [CSCI 4034 - Theoretical Foundations of Computer Science](#)
- [CSCI 4650 - Numerical Analysis I](#)
- [CSCI 4738 - Senior Design I](#)
- CSCI Tech Elective. Semester Hours: 3

Total: 15 Hours

Second Semester

- [CSCI 4591 - Computer Architecture](#)
- [CSCI 4739 - Senior Design II](#)
- [CSCI 4761 - Introduction to Computer Networks](#)
- CSCI Tech Elective. Semester Hours: 3
- Core Curriculum Elective Semester Hours: 3 (see note 1)

Total: 15 Hours

Program Total: 128 Hours

Students must take five courses (15 semester hours) chosen from any CSCI 3000 or 4000-level courses that are not part of the required bachelor of science in the Computer Science (BSCS) curriculum. The 2000-level CSCI “Practical Systems Administration” course will be counted as one CSCI elective.

Core Curriculum Elective is to be selected from the undergraduate General Education core.

ENGL 1020 and ENGL 2030 are the only approved composition courses for the CU Denver Core Curriculum. ENGL 1020 should be taken the first semester a student is enrolled at CU Denver.

Criminal Justice BA

Program Director: Angela Gover, PhD

Prospective Students: 303-315-2228

Current Students and Advising: 303-315-0021

Faculty

Professors:

Mary Dodge, PhD, University of California, Irvine

Angela Gover, PhD, University of Maryland

Mark Pogrebin, PhD, University of Iowa

Eric Poole, PhD, Washington State University

Paul Stretesky, PhD, Florida State University

Associate Professors:

Callie Rennison, PhD, University of Houston

Assistant Professor:

Lonnie Schaible, PhD, Washington State University

Instructor:

Lucy Dwight, PhD, Pennsylvania State University

The School of Public Affairs' bachelor of arts program in criminal justice is an interdisciplinary program that combines specific course work in criminal justice with a liberal arts focus. The criminal justice degree offers training for specific occupations within criminal justice agencies and provides students with the critical thinking, writing and presentation skills necessary for career advancement and graduate study. The course work explores the complex nature of crime causation, criminal justice organizations and the implications of public policies that allow graduates to adapt to the evolving nature of the field.

As with all undergraduate degrees, students are required to complete the requirements of the CU Denver core curriculum, providing an education that draws heavily on social and natural sciences as well as liberal arts. The program will not only provide a direct line to employment in the growing field of criminal justice, but will also facilitate the movement of outstanding

students into SPA's MCJ and PhD graduate programs. Students will be well prepared to pursue additional advanced degrees in fields where critical thinking and analytical skills are required.

Admissions Requirements

Entering freshmen, current CU Denver students and transfer students are eligible for admission to the program. All students must meet the admission requirements described in the Information for Undergraduate Students chapter of this catalog.

Transfer Students

Students who have attended another college or university are expected to meet general requirements for admission of transfer students as described in the Information for Undergraduate Students chapter. A maximum of 15 semester credits of criminal justice course work can be accepted and applied to the criminal justice major. The BACJ program director has the final discretionary authority to accept or reject criminal justice transfer credits.

Advising and Student Services

Upon matriculation into the criminal justice program, students will receive advising from the undergraduate academic advisor. The academic advisor will assist students with registration, clarify university and department policy and facilitate the graduation checkout. Advising will ensure that students take appropriate courses in the core curriculum to provide a foundation for their course work in the program. Students will also be assigned a faculty advisor who will assist them with questions about their majors, concentrations and career directions.

Grading and Policies

Dean's List Criteria

CU Denver will use a fixed criterion across all colleges for determining eligibility for the Dean's List. This policy applies to undergraduate students.

For fall and spring semesters, students must successfully complete 9 hours in the semester upon which to determine grade point. These courses can be both within and outside of the School of Public Affairs. MSCD Pooled courses will not be included in the calculation nor will they count towards the 9 hours required for consideration. The GPA set for inclusion in the Dean's List is 3.75. In the summer semesters, students must complete 6 hours as a basis for inclusion in the Dean's List. Course inclusion will be the same as in fall and spring semesters. The GPA for Dean's List in summer will also be 3.75. Colleges will collect data each semester on the number of students making the Dean's List and report the number and percentage of total students in the college. Students who make the Dean's List for both fall and spring semesters may be eligible of a Dean's List scholarship award. Dean's List Scholarship awards vary in amount each semester depending on funding and the number of BACJ students who achieve Dean's List status. The Registrar's Office will calculate the semester GPAs for all students two weeks prior to the due date for semester grades. Those GPAs will be the basis for determining the Dean's List. Incompletes will not be considered in the calculation of minimum number of hours. The Dean's List will not be recalculated to include completed incompletes.

Academic Probation and Suspension

Students at the university are expected to maintain progress in their degree program, as defined by being in “good academic standing.” Good academic standing requires minimally a cumulative grade point average (GPA) of 2.0 on all University of Colorado course work.

Academic Probation

- Academic Probation is a warning to students that they are not progressing toward completion of their degree in a satisfactory manner.
- Students are placed on Academic Probation when their cumulative CU GPA falls below a 2.0 at the end of any academic term.
- Students are informed in writing (via university-assigned email and postal letter) of their academic probation status.
- Students on Academic Probation will be required to complete the Academic Success Plan during their first semester on Academic Probation.
- Students will be required to schedule an appointment and meet with their academic advisor to discuss the completed Academic Success Plan before they will be allowed to register for the subsequent term.
- Students on Academic Probation will be required to schedule an appointment and meet with their academic advisor every semester that they are on Academic Probation before they will be allowed to register.
- Academic Probation requires that students achieve a minimum 2.3 semester GPA each subsequent term until their cumulative CU GPA is at least a 2.0 to return to good academic standing. Students must achieve a minimum 2.0 cumulative CU GPA to meet graduation requirements.
- Students who fail to earn the 2.3 semester GPA during any semester of Academic Probation will be placed on Restricted Academic Probation.
- Students have five semesters or 30 credits (whichever happens sooner) to raise their cumulative GPA to above a 2.0, or they will be placed on Academic Suspension.
- Once a student has raised his/her cumulative CU GPA to at least a 2.0, s/he will be removed from Academic Probation and notified via University-assigned email that s/he is in Academic Good Standing.

Restricted Academic Probation

- Students who fail to earn the 2.3 semester GPA during any semester of Academic Probation will be placed on Restricted Academic Probation.
- Students are informed in writing (via University-assigned email and postal letter) of Restricted Academic Probation status.
- Students on Restricted Academic Probation will be allowed to enroll for a maximum of 6 credits/2 classes per semester (whichever is more). A course and its attached lab are considered to be one course in this case.
- Students on Restricted Academic Probation will be required to schedule an appointment and meet with their academic advisor in order to register for courses.

- Students on Restricted Academic Probation will not be able to register online; they will need to register for courses using a Schedule Adjustment Form, which must be submitted to the Service Center (North Classroom #1003) for processing.
- Restricted Academic Probation requires that students achieve a minimum 2.3 semester GPA each subsequent term until their cumulative CU GPA is at least a 2.0. Students must achieve a minimum 2.0 cumulative CU GPA to return to good academic standing and to meet graduation requirements.
- Students on Restricted Academic Probation who do not meet the 2.3 minimum semester GPA will be placed on Academic Suspension.
- Students who fail to raise their cumulative GPA to 2.0 or above in five semesters or 30 credit hours on Academic Probation and Restricted Academic Probation will be placed on Academic Suspension.

Academic Suspension

- Students on Restricted Academic Probation who do not meet the 2.3 minimum semester GPA will be placed on Academic Suspension.
- Students are informed in writing via certified/registered letter of their Academic Suspension status.
- The minimum duration of Academic Suspension is for a period of one year (three semesters, including summer term). Students placed on Academic Suspension will be unable to take courses from any CU campus during this time.
- Should a student be placed on Academic Suspension while registered for the next semester, s/he will be administratively dropped from their courses by the University.
- A student's Academic Suspension status is permanently indicated on his/her official University of Colorado transcript. During the one-year Academic Suspension period, students who wish to return to the University should consider one (or both) of the following actions:
 - Attend another regionally-accredited college/university.
Students who choose to attend another institution while on Academic Suspension can take as many or as few credits as they choose, but must earn a 2.75 cumulative GPA in all transferable course work. Students should consult their academic advisor to discuss appropriate course work.
 - Use the time off to directly address and resolve the factors that contributed to the academic difficulty.
- After the one-year suspension period has elapsed, students must petition the appellate committee (of the school or college they wish to enter) for readmission and meet and document at least one of the following criteria:
 - Attendance at another regionally accredited college/university where they earned a minimum cumulative GPA of 2.75 in transferable credit.
 - Explanation of their previous academic difficulty, demonstration of what has changed, and how this will allow them to now achieve and maintain Good Academic Standing (including a semester GPA of at least 2.3 and a cumulative GPA of at least a 2.0).

- Students who choose to petition the School of Public Affairs appellate committee for readmission must submit their petitions by the following deadlines:
 - For fall admission: June 1
 - For spring admission: December 1
 - For Maymester/summer admission: April 1
- If a student is granted readmission and his/her CU GPA is below a 2.0, s/he will be readmitted on Restricted Academic Probation. These students must meet the condition of Restricted Academic Probation every semester until their cumulative CU GPA is at least a 2.0.

Second Suspension

- Students who are readmitted after their first Academic Suspension and fail to meet the conditions of Restricted Academic Probation for a second time are placed on a second suspension for an indefinite period of time.
- Students on a second suspension may be readmitted to the University only by petition to the college's appellate committee.
- Students will not be considered for readmission unless they have demonstrated significant improvement in academic performance at the college/university level, and/or considerable and positive change in personal circumstances.

Grade Policy

The University of Colorado grading system is based on a 4.0 absolute scale.

Retaking Courses

A student may not retake any course more than twice during the course of the degree program, regardless of whether the need for a retake results from a low grade, an incomplete, or a course withdrawal. A student who receives a letter grade for a course that is too low to qualify for credit (below a C- for major or minor courses) may retake the course once. Both grades will be used to calculate the student's overall GPA. To retake a course, the student must re-enroll and pay tuition and fees again.

Incompletes

An Incomplete may be granted when the student has successfully completed 75 percent or more of the course and is prevented from completing the class by circumstances beyond their control. The course instructor has discretion as to whether to grant an Incomplete, and students should be aware that not all faculty will grant Incompletes. In addition, students in online courses should be aware that they will not have access to the course shell after the ending date of the course, and so Incompletes are not available for work that must be completed using the course shell. If the instructor agrees to grant an Incomplete, the student must make arrangements to complete the remaining coursework with the original instructor within one year. The student may not sit in on the class in subsequent semesters. Once the coursework is completed, the instructor will change the grade to a letter grade. The Incomplete notation will appear along with the final grade on the student's transcript. If the coursework is not completed within a year, the Incomplete will automatically change to an F unless the student and the instructor have agreed in writing to an extension.

Pass/Fail Grades

Core knowledge area and general electives are the only courses that can be completed pass/fail. A grade of “D-“ or better is translated by the Records Office to a P (pass) grade. P grades do not affect students’ GPA; F grades do affect students’ GPA. Students interested in completing a course as pass/fail must submit a Schedule Adjustment Form during the add/drop period during the respective semester to the BACJ Academic Advisor. Students need to consult the academic calendar posted on the Office of the Registrar’s webpage for add/drop dates. Up to 16 credits may be completed as pass/fail and credited toward the bachelor degree. Students can complete a maximum of 6 credits as pass/fail in any one semester.

The Internship Program

Undergraduate students without experience in the field must complete an internship course for credit under the direction of a faculty sponsor and the Experiential Learning Center. Internships are helpful for career exploration early in a student’s academic career or for job experience after developing academic content in the major. Students must have a minimum 2.0 cumulative GPA, a minimum of 15 semester hours completed at CU Denver, and must have successfully completed CRJU 1000 and CRJU 2041 before registering for the internship. A maximum of 3 semester hours of internship per semester and 6 semester hours total may be counted toward the 120 semester hours necessary for graduation. Undergraduate students should contact the Experiential Learning Center for details on internship placements, paperwork and requirements.

Program Requirements

Students completing a BA in criminal justice at CU Denver will complete a minimum of 120 semester hours including:

- 37–38 general education core curriculum semester hours
- 21 undergraduate criminal justice semester hours, including 18 upper-division semester hours
- 15 elective semester hours in criminal justice and ancillary fields for the selected area of concentration (including an internship)
- 46–48 elective semester hours, an optional College of Liberal Arts and Sciences or language minor (15-21 hours), optional electives or internship
- students without experience in the field of criminal justice must complete a 3-semester-hour internship

Students must receive a minimum of a C- in each undergraduate course applied to satisfy major or minor degree requirements.

Required Criminal Justice Courses

The following courses are required for majors:

- CRJU 1000 - Introduction to Criminal Justice
- CRJU 2041 - Crime Theory and Causes
- CRJU 3100 - Criminal Justice Research Methods
- CRJU 3150 - Statistics for Criminal Justice

- CRJU 4042 - Corrections
- CRJU 4043 - Law Enforcement
- CRJU 4044 - Courts and Judicial Process

In addition, criminal justice majors must take SOCY 1001 - Introduction to Sociology. This class also fulfills a social science requirement in UCD's general education core curriculum.

Total: 21

Criminal Justice Electives

Criminal justice majors must take 15 credit hours of electives, 9 of which must be criminal justice courses offered by the School of Public Affairs, and 6 of which may be taken from other departments. Electives in the School of Public Affairs include:

- CRJU 3160 - White-Collar Crime
- CRJU 3220 - Community-Based Corrections
- CRJU 3250 - Violence in Society
- CRJU 3251 - Crime and Media
- CRJU 3252 - Violent Offenders
- CRJU 3310 - Police in Contemporary Society
- CRJU 3320 - Police-Community Relations
- CRJU 3410 - Probation and Parole
- CRJU 3420 - Pleas, Trials and Sentences
- CRJU 3510 - Drugs, Alcohol and Crime
- CRJU 3520 - Juvenile Justice Administration
- CRJU 3540 - Crime and Delinquency Prevention
- CRJU 4120 - Race, Class and Crime
- CRJU 4121 - Ethics in Criminal Justice
- CRJU 4130 - Poverty and Crime
- CRJU 4140 - Domestic Violence and Crime
- CRJU 4150 - Sex Offenders and Offenses
- CRJU 4170 - Victim Studies
- CRJU 4171 - Murder In America
- CRJU 4180 - Comparative Study of Criminal Justice Systems
- CRJU 4190 - Women and Crime
- CRJU 4230 - Corrections and Treatment
- CRJU 4252 - Criminal Offenders
- CRJU 4310 - Leadership Roles in Criminal Justice
- CRJU 4410 - Criminal Law and Constitutional Procedures
- CRJU 4430 - Law and Society
- CRJU 4440 - Courts and Social Policy
- CRJU 4450 - Homeland Security
- CRJU 4520 - Gangs and Criminal Organizations
- CRJU 4530 - Families and Intergenerational Crime
- CRJU 4600 - Special Topics in Criminal Justice

- CRJU 4840 - Independent Study: CRJU

Total: 9 hours

Other Department Electives**

- COMM 4265 - Gender and Communication
- ECON 3300 - Economics of Crime and Punishment
- PSCI 3034 - Race, Gender, Law and Public Policy
- PSCI 4124 - Denver Politics
- PSCI 4185 - Corruption in the U.S. and Abroad
- PSCI 4427 - Law, Politics and Justice
- PSCI 4477 - Constitutional Law I
- PSCI 4487 - Constitutional Law II
- PSCI 4545 - Immigration Politics
- PSCI 4837 - Contemporary Issues in Civil Liberties
- PSYC 3205 - Human Development I: Child Psychology
- PSYC 3215 - Human Development II: Adolescence and Adulthood
- PSYC 3265 - Drugs, Brain and Behavior
- PSYC 3305 - Abnormal Psychology
- PSYC 3612 - Domestic Abuse
- SOCY 2462 - Introduction to Social Psychology
- SOCY 3020 - Race and Ethnicity in the U.S.
- SOCY 3600 - Social Relations
- SOCY 3700 - Sociology of the Family
- SOCY 4340 - Juvenile Delinquency
- SOCY 4440 - Social Inequality
- SOCY 4460 - Hate Groups and Group Violence
- SOCY 4770 - Advanced Topics in Sociology

Total: 6 hours

**Students must comply with departmental prerequisites.

Examples for Areas of Concentration

The BACJ major does not have formal areas of concentration that will appear as such on student transcripts; however, students may choose to create their own informal concentrations. Some examples of areas of informal concentration are listed below. For other options, consult with the academic advisor.

Juvenile Justice

- CRJU 3520 - Juvenile Justice Administration
- CRJU 3540 - Crime and Delinquency Prevention
- CRJU 4520 - Gangs and Criminal Organizations

- SOCY 3700 - Sociology of the Family
- SOCY 4340 - Juvenile Delinquency

Total: 15 hours

Law and Society

- CRJU 3420 - Pleas, Trials and Sentences
- CRJU 4430 - Law and Society
- CRJU 4440 - Courts and Social Policy
- PSCI 3034 - Race, Gender, Law and Public Policy
- PSCI 4427 - Law, Politics and Justice

Total: 15 hours

Domestic Violence

- CRJU 4140 - Domestic Violence and Crime
- CRJU 4170 - Victim Studies
- CRJU 4530 - Families and Intergenerational Crime
- COMM 4265 - Gender and Communication
- PSYC 3612 - Domestic Abuse

Total: 15 hours

Economics BA

Requirements for Major

Students majoring in economics for the BA degree must declare such by the time they have completed 60 semester hours and complete a minimum of 40 semester hours in economics. The minimum grade in each CU Denver economics course is a *C-* (1.7), except that one *D-* in one economics elective is allowed. A GPA of 2.5 in economics courses taken at CU Denver is required to graduate. No pass/fail grades may count toward the major.

Program Requirements

Required Economics Courses

- ECON 2012 - Principles of Economics: Macroeconomics
- ECON 2022 - Principles of Economics: Microeconomics
- ECON 3801 - Introduction to Mathematical Economics
(ECON 3801 may be waived if student has completed Calculus I, II and III with a grade of *B* or better. UCD equivalents are MATH 1401, 2411 and 2421.)
- ECON 3811 - Statistics with Computer Applications
- ECON 4071 - Intermediate Microeconomic Theory
- ECON 4081 - Intermediate Macroeconomic Theory
- ECON 4091 - History of Economic Thought
- ECON 4811 - Introduction to Econometrics

Total: 25 Hours

Electives

Economics Courses

Any five 3-semester-hour courses taken in economics may satisfy this requirement, other than internships and independent studies which require the approval of the department chair.

Electives Total: 15 Hours

Major Total: 40 Hours

Graduating seniors must submit the three best papers that the student wrote in any three separate courses taken in the Department of Economics for the outcomes assessment of the economics program. The three papers should be handed in at one time in a folder to the economics office, before the first day of the month in which the student plans to graduate.

At least six of the major courses (18 semester hours), including at least three courses out of ECON 3801, 4071, 4081, 4091 and 4811, must be taken from economics faculty at CU Denver.

Once a student has enrolled at CU Denver, no courses in the major may be taken outside the economics department without permission from the undergraduate advisor. No math is formally

required, except for the college algebra prerequisite for ECON 3801. Students desiring a recommendation to a graduate school in economics, however, should consult with economics faculty regarding additional mathematics courses.

Electrical Engineering BS

Undergraduate Program Objectives

The educational objectives of the Electrical Engineering undergraduate program are to produce graduates who will within a few years of graduation:

- Advance professionally as productive, practicing engineers through the continued development of their technical capabilities and expertise.
- Further develop their knowledge, skill set, and career opportunities through graduate education in engineering and other fields such as business, medicine, and law.

These objectives are consistent with the mission of the University of Colorado Denver, congruent with the goals of the College of Engineering and Applied Science and reflective of the mission of the Department of Electrical Engineering.

Typical Curriculum for BS (Electrical Engineering)

Freshman Year

First Semester

- CHEM 1130 - Engineering General Chemistry
- ELEC 1201 - Introduction to Electrical Engineering
- ELEC 1510 - Logic Design
- ENGL 1020 - Core Composition I (*see note 1*)
- MATH 1401 - Calculus I

Total: 16 Hours

Second Semester

- ELEC 1520 - Embedded Systems Engineering I
- ELEC 2531 - Logic Laboratory
- MATH 2411 - Calculus II
- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I
- Core Curriculum Elective (*see note 1*) (3 semester hours)

Total: 16 Hours

Sophomore Year

First Semester

- ELEC 2132 - Circuit Analysis I
- ENGL 2030 - Core Composition II
- MATH 2421 - Calculus III

- MATH 3195 - Linear Algebra and Differential Equations
- PHYS 2331 - General Physics II: Calculus-Based

Total: 18 Hours

Second Semester

- ELEC 2142 - Circuit Analysis II
- ELEC 2520 - Embedded Systems Engineering 2
- ELEC 2552 - Sophomore Circuits Laboratory
Core Curriculum Electives (see note 1) (6 semester hours)

Total: 13 Hours

Junior Year

First Semester

- ELEC 3133 - Electromagnetic Fields
- ELEC 3215 - Electronics I
- ELEC 3316 - Linear Systems Theory
- ELEC 3651 - Digital Hardware Design
- ELEC 3715 - Electronics Laboratory
- ENGR 3400 - Technology and Culture

Total: 16 Hours

Second Semester

- ELEC 3164 - Energy Conversion
- ELEC 3225 - Electronics II
- ELEC 3724 - Energy Conversion Laboratory
- ELEC 3735 - Junior Laboratory
- ELEC 3817 - Engineering Probability and Statistics
Core Curriculum Elective (see note 1)
Professional Elective (see note 3)

Total: 17 Hours

Senior Year

First Semester

- ELEC 4309 - Senior Design Project I
Engineering Science Elective (see note 4) (3 semester hours)
ELEC Specialty and Laboratory (see note 5) (4 semester hours)
ELEC Specialty Courses (6 semester hours)

Total: 16 Hours

Second Semester

- ELEC 4319 - Senior Design Project II (*see note 3*)
Professional Elective (*see note 3*) (3 semester hours)
ELEC Specialty and Laboratory (*see note 6*) (4 semester hours)
ELEC Specialty (*see note 6*) (3 semester hours)
Core Curriculum Elective (*see note 1*) (3 semester hours)

Total: 16 Hours

Program Total: 128 Hours

The particular curriculum to be satisfied by each student is the one published in the catalog current at the time of his/her 30-hour senior checkout. A graduation agreement should be requested by each student before completing registration for his/her last semester. Additional information is contained in the "Department of Electrical Engineering Advisement Guide." Students should also refer to the section in this catalog on "Academic Policies of the College of Engineering and Applied Science."

1. Common core requirements of the College of Engineering and Applied Science are outlined in the CU Denver Undergraduate Core Curriculum or in the "Department of Electrical Engineering Advisement Guide."
2. All electrical engineering students must satisfactorily complete ELEC 4309, Senior Design Project I, and ELEC 4319, Senior Design Project II, in consecutive semesters.
3. Professional electives may be selected from an approved list of upper-division or graduate-level courses or cooperative education. The electrical engineering advisor must be consulted prior to the selection of these electives.
4. The engineering science elective may be satisfied by taking ENGR 3012 Thermodynamics, ELEC 4678 Quantum Electronics, or ELEC 4755 Renewable Energy.
5. Seventeen semester hours of electrical engineering elective and specialty courses in association with the laboratories are required.

Specialty Course and Laboratory Requirements

Students are required to take at least two (2) laboratories out of the following six (6) groups.

The theory component may be taken as a specialty course.

Control Systems

- ELEC 4136 - Control Systems Analysis
- ELEC 4276 - Digital Control Systems
- ELEC 4406 - Control Systems Laboratory

Micro-electronics

- ELEC 4025 - Device Electronics
- ELEC 4225 - Advanced Electronics
- ELEC 4435 - Advanced Electronics Laboratory
- ELEC 4555 - VLSI Circuit Simulation

Communications

- ELEC 4247 - Communication Theory
- ELEC 4248 - Digital Communication Systems
- ELEC 4467 - Communications Laboratory

Electromagnetic Fields and Waves

- ELEC 4133 - Advanced Electromagnetic Fields
- ELEC 4373 - Optical Engineering
- ELEC 4423 - Radio Frequency Laboratory
- ELEC 4678 - Quantum Electronics

Computer Engineering

- ELEC 4501 - Microprocessor Based Design
- ELEC 4511 - Hardware-Software Interface
- ELEC 4521 - Microprocessor Laboratory
- ELEC 4561 - Hardware-Software Lab
- ELEC 4723 - High Performance Computer Architecture

Power Systems

- ELEC 4164 - Electric Drive Systems
- ELEC 4170 - Electric Drive Systems Laboratory
- ELEC 4174 - Power Electronic Systems
- ELEC 4184 - Power Systems Analysis
- ELEC 4444 - Power Systems Laboratory
- ELEC 4474 - Power Electronics Laboratory
- ELEC 4755 - Renewable Energy Systems

English BA

The course of study offered by the Department of English is designed to develop a student's ability to read literature responsibly and imaginatively, to foster an understanding and appreciation of our literary inheritance and to provide the historical perspective from which to evaluate contemporary writing. Careful study of the use of the English language also should help a student to resist the misuse and corruption of language in politics, the media and elsewhere. Students who complete the program in English are expected to have mastered the ability to express their ideas in clear and succinct prose.

Requirements for the English Major

Students majoring in English must present a total of 39 hours in the literature, film studies and/or creative writing options (excluding ENGL 1010, 1020 and 2030), of which 27 hours must be earned in upper-division courses. None of the required 39 hours may be taken on a pass/fail basis. Only courses completed with a grade of C (2.0) or above may be counted toward the major. At least 15 upper-division hours of the student's work in English must be taken from English faculty at CU Denver. Students planning to major in English must consult with an advisor as soon as possible. Students may choose only one of the three options in the English major.

LITERATURE OPTION

REQUIRED COURSES

- ENGL 2450 - Introduction to Literature
- ENGL 3001 - Critical Writing
- ENGL 4999 - Literary Studies Senior Seminar

Total: 9 Hours

AREA REQUIREMENTS

Choose one course from each area below. No course is repeatable.

Historical Survey

- ENGL 4080 - History of English Language
- ENGL 4166 - History of American Poetry
- ENGL 4200 - History of the English Novel I
- ENGL 4210 - History of the English Novel II
- ENGL 4230 - The American Novel
- ENGL 4236 - The American Short Story
- ENGL 4300 - History of British Drama
- ENGL 4320 - History of Poetry in English
- ENGL 4350 - History of American Drama

Old English, Medieval Language and Literature

- ENGL 4400 - Old English I
- ENGL 4500 - Medieval Literature
- ENGL 4510 - Whores and Saints: Medieval Women
- ENGL 4730 - Chaucer

Renaissance, Restoration and 18th Century British Literature

- ENGL 3661 - Shakespeare
- ENGL 4520 - English Renaissance
- ENGL 4530 - Milton
- ENGL 4540 - Restoration and the 18th Century

Eighteenth- and Nineteenth-Century British Literature

- ENGL 4200 - History of the English Novel I
- ENGL 4210 - History of the English Novel II
- ENGL 4560 - English Romanticism
- ENGL 4580 - The Victorian Age

American Literature

- ENGL 3750 - American Literature after the Civil War
- ENGL 3700 - American Literature to the Civil War
- ENGL 4166 - History of American Poetry
- ENGL 4230 - The American Novel
- ENGL 4236 - The American Short Story
- ENGL 4350 - History of American Drama

Modern and Contemporary Literature

- ENGL 3450 - Twentieth Century Women Writers
- ENGL 3480 - Modern Drama
- ENGL 4250 - Twentieth Century Fiction
- ENGL 4460 - Contemporary World Literature
- ENGL 4600 - Modernism

Total: 18 Hours

REQUIRED ELECTIVES

Choose any four English courses: two at the 3000 or 4000 level, and two at any level.

Total: 12 Hours

Literature Option Total: 39 Hours

Additional courses, total not to exceed 56 hours (any level).

CREATIVE WRITING OPTION

REQUIRED COURSE

- ENGL 2450 - Introduction to Literature

Total: 3 Hours

AREA REQUIREMENTS

Complete all courses in **either** poetry or fiction.

Poetry

- ENGL 3020 - Poetry Workshop
- ENGL 3050 - Fiction Workshop
- ENGL 4025 - Advanced Poetry Workshop
- ENGL 4160 - Poetics
- ENGL 4820 - Senior Poetry Workshop

Choose one course from the following:

- ENGL 4080 - History of English Language
- ENGL 4166 - History of American Poetry
- ENGL 4320 - History of Poetry in English
- ENGL 4800 - Special Topics in Creative Writing (poetry emphasis)

Fiction

- ENGL 3020 - Poetry Workshop
- ENGL 3050 - Fiction Workshop
- ENGL 4055 - Advanced Fiction Workshop
- ENGL 4610 - Narrative: Form and Theory
- ENGL 4850 - Senior Fiction Workshop

Choose one course from the following:

- ENGL 4200 - History of the English Novel I

- ENGL 4210 - History of the English Novel II
- ENGL 4230 - The American Novel
- ENGL 4236 - The American Short Story
- ENGL 4800 - Special Topics in Creative Writing (fiction emphasis)

Area Requirements Total: 18 Hours

REQUIRED ELECTIVES

Choose any six 3000 or 4000 level English courses.

Recommended:

- ENGL 3001 - Critical Writing
- ENGL 3106 - Advocate Practicum
- ENGL 3416 - Magazine Writing
- ENGL 4800 - Special Topics in Creative Writing
- ENGL 4810 - Literary Editing Practicum

Electives Total: 18 Hours

Creative Writing Option Total: 39 Hours

Additional courses, total not to exceed 56 hours (any level).

FILM STUDIES OPTION

The film studies option within the English major is designed to prepare students for a range of professional careers in areas such as screenwriting, film criticism, video production and the teaching of film, as well as those students who plan to pursue graduate programs in film studies. Required courses give students a strong grounding in film history, verbal and visual narrative, and the critical terms and techniques used in both film and literary analysis. Electives give students the option of emphasizing either the creative approach or the critical approach to moving-image media, or a combination of the two. The film studies option also affords students the opportunity to create video productions using state-of-the-art digital video and editing equipment and the possibility of airing their productions on cable TV. Offered in cooperation with the College of Arts & Media (CAM), the film studies option can be completed entirely on the Auraria Campus.

REQUIRED COURSES

- ENGL 2250 - Introduction to Film
- ENGL 2450 - Introduction to Literature
- ENGL 3070 - Film History I
- ENGL 3080 - Film History II
- ENGL 4420 - Film Theory and Criticism

Total: 15 Hours

AREA REQUIREMENTS

Choose eight courses. Students may take courses in all areas. Eighteen of the 24-hour minimum must be at the 3000/4000 level. Production courses must be taken through the College of Arts & Media (CAM). Equivalent screenwriting courses may also be taken through CAM. [Courses marked by an asterisk are repeatable if taken as a different genre/director/topic.]

A. Critical Studies

- ENGL 1601 - Telling Tales: Narrative Art in Literature and Film
- ENGL 3001 - Critical Writing
- * ENGL 3075 - Film Genres
- * ENGL 3085 - Film Directors
- ENGL 3200 - From Literature to Film
- * ENGL 3300 - Topics in Film
- * ENGL 4190 - Special Topics in Rhetoric and Writing
(film and media-focused only; e.g., Film and Rhetoric)
- * ENGL 4770 - Topics in English: Film and Literature
(film and media-focused only)
- ENGL 4990 - Senior Writing Project in Creative Writing or Film Studies
Any 3000- or 4000-level literature course with ENGL prefix

B. Screenwriting

- ENGL 2390 - Writing the Short Script
- ENGL 2415 - Introduction to Movie Writing
- ENGL 3415 - Screenwriting Workshop (repeatable once)
- ENGL 4990 - Senior Writing Project in Creative Writing or Film Studies

C. Production

- FITV 1050 - Production I Basics of Film and Television
- FITV 2050 - Production II Film and Television Techniques

Total: 24 Hours

Film Studies Option Total: 39 Hours

Additional courses, total not to exceed 56 hours (any level).

College Core Courses for English Majors

Students must complete the College of Liberal Arts and Sciences core curriculum requirements as specified in the CLAS Core Curriculum/Graduation Requirements chart. Check the online schedule for specific course offerings.

Electives

Elective hours may be selected at the student's discretion, but students are urged to work with their advisor in outlining a program in which electives and requirements support each other. Six hours earned in the internship/cooperative education program may be counted toward the major.

English Writing BA

Especially designed for future writers, the writing major offers a wide range of intensive writing experiences combining such areas as rhetoric, professional, general and creative writing.

Requirements for the English Writing Major

Students majoring in writing must present a total of 39 hours for the major (excluding ENGL 1010, 1020 and 2030), of which 27 hours must be earned in upper-division courses. None of the required 39 hours may be taken on a pass/fail basis. Only courses completed with a grade of C (2.0) or above may be counted toward the major. At least 15 upper-division hours of the student's work in writing must be taken from English faculty at CU Denver. Students planning to major in writing should consult with an advisor as soon as possible. This major is also available online. [Courses marked by an asterisk are repeatable when title/content differ.]

Required Courses

- ENGL 2060 - Introduction to Writing Studies
- ENGL 3084 - Multimedia Composition
- ENGL 3160 - Language Theory
- -OR- ENGL 4080 - History of English Language
- ENGL 4190 - Special Topics in Rhetoric and Writing
(Repeatable if topic differs)
- ENGL 4830 - Advanced Rhetorical Analysis (Seniors only)

Total: 15 Hours

Area Requirements

WRITING ELECTIVES

Choose three courses from the following (3000 or 4000 level only, except ENGL 2070):

- ENGL 2070 - Grammar, Rhetoric and Style
- ENGL 3154 - Technical Writing
- ENGL 3160 - Language Theory
- ENGL 3170 - Business Writing
- ENGL 4180 - Argumentation and Logic
- ENGL 4190 - Special Topics in Rhetoric and Writing
(Repeatable if topic differs)
- ENGL 4280 - Proposal and Grant Writing
- ENGL 4601 - Principles and Practices of Second Language Acquisition
- ENGL 4651 - Second Language Writing
- ENGL ____ - Writing Course

Total Writing Electives: 9 Hours

INTERDISCIPLINARY LANGUAGE, LITERACY AND DIGITAL MEDIA

Students pursuing interdisciplinary language studies may choose any five writing or workshop courses offered by the Department of English at the 3000 or 4000 level only. In addition, students may also choose writing-intensive courses offered by other departments with prior approval of an English advisor. Additional ENGL choices include:

- ENGL 3939 - Internship
- ENGL 4190 - Special Topics in Rhetoric and Writing
- ENGL 4740 - Honors in Writing

Total Interdisciplinary Language, Literacy and Digital Media Area: 15 Hours

Major Total: 39 Hours

Additional courses, total not to exceed 56 hours (any level).

College Core Courses for English Writing Majors

Students must complete the College of Liberal Arts and Sciences core curriculum requirements as specified in the UC Denver Core Curriculum and CLAS Graduation Requirements chart. Check the online schedule for specific course offerings.

Electives

Elective hours may be selected at the student's discretion, but students are urged to work with their advisor in outlining a program in which electives and requirements support each other. Up to 6 hours earned in the cooperative education program may be counted toward the major.

Ethnic Studies, BA

Advisor: Resa Cooper-Morning

Students earning a BA degree with a Major in Ethnic Studies at CU Denver will complete a minimum of 33 credit hours in ethnic studies (21 required credit hours in ethnic studies, 12 elective credit hours in ethnic studies). The skills and knowledge that students gain while pursuing this degree are transferable to a variety of careers. In common with other liberal arts graduates, those with a degree in ethnic studies will be trained in creative and critical thinking, complex reasoning, and effective communication. In addition, ethnic studies graduates will have cultural competency skills that are highly valued by employers, especially those in sales, and service areas. Other occupations that employ many ethnic studies graduates include: law, teaching, journalism, marketing, community and union organizing and social work. Ethnic studies graduates also find work in non-profit agencies and in federal, state, and local government agencies.

Degree Requirements

Required Ethnic Studies Core Course

- ETST 2000 - Introduction to Ethnic Studies

Total: 3 Hours

Focal Racial/Ethnic Groups Courses

- ETST 2155 - African American History
- ETST 3108 - Chicano/a and Latino/a History
- ETST 3297 - Social History of Asian Americans
- ETST 3396 - History of the American Indian

Total: 12 Hours

Any Four Ethnic Studies Electives

Total: 12 Hours

Research Methods Course

One course from the following:

- ETST 4000 - Research Methods in Ethnic Studies
- PSCI 3011 - Research Methods
- SOCY 3111 - Research Methods
- COMM 4221 - Research Methods: Qualitative

Total: 3 Hours

Senior Seminar

- ETST 4960 - Senior Seminar in Ethnic Studies

Total: 3 Hours**Major Total: 33 Hours****All grades in ETST must be a C or above. Grades of C- or below DO NOT APPLY.**

Finance Emphasis - BS in Business Administration

The principal areas of study in finance are financial management in small and large businesses, investments, financial institutions, and international finance. The study of finance is intended to provide an understanding of fundamental theory and practice pertaining to finance, to make sound financial decisions. Students are taught to think logically about financial problems, so that they can formulate and implement value maximizing decisions and policies for the business. For this purpose, it is necessary to understand the importance of finance in the economy and the functions and purposes of monetary systems, credit, prices, money markets and financial institutions. Emphasis is placed on financial policy, management, control, analysis, and decision making.

The finance emphasis provides the students with the skills to succeed in all areas of finance. Numerous job opportunities exist in the field of business finance and with financial institutions, mutual funds, securities firms, personal wealth management firms, and financial planning firms including positions involving an understanding and sale of securities.

For this area of emphasis, students are required to take the following complement of courses, in addition to the undergraduate business core:

FNCE 3500 - Management of Business Capital
FNCE 3600 - Financial Markets and Institutions
FNCE 3700 - Investment and Portfolio Management
FNCE 4370 - International Financial Management*
FNCE 4500 - Corporate Financial Decisions
Upper division business electives (12 semester hours)

Total: 27 semester hours

Financial Management Concentration

ACCT 3220 Intermediate Financial Accounting I
ACCT 4054 Accounting Systems and Data Processing
ACCT 3320 Intermediate Cost Accounting
ACCT 3000- or 4000-level elective
FNCE 3600 - Financial Markets and Institutions
FNCE 3700 - Investment and Portfolio Management
FNCE 4370 - International Financial Management*
FNCE 4500 - Corporate Financial Decisions

Total: 27 semester hours

Risk Management and Insurance Concentration

The risk management and insurance (RMI) concentration in the finance area of emphasis provides students with the fundamental knowledge needed to accurately measure and manage risk.

Recent crisis situations suggest that understanding risk and how to manage it, and ultimately, how risk management can be used to increase firm value, is essential in the current business

environment. The RMI specialty will provide an overall perspective on risk, with a specific focus on insurance products and their use in mitigating risk in business and personal situations. The insurance industry recognizes many high-level certifications as a sign of expertise, and the RMI course work will provide the knowledge base so that students can proceed to acquire certification in their specific choice of insurance specialty.

Potential job opportunities include positions in the insurance industry and those that require a thorough understanding of risk, such as corporate risk officer or risk manager. In addition, students who choose to work in the insurance industry can make a seamless transition into underwriting, ratemaking, and policy approval. The program will be supported by unique internship and special project opportunities in the insurance industry, and is the first program of its kind in the region.

The following course work will be required, in addition to the undergraduate business core:

FNCE 3500 - Management of Business Capital
FNCE 3700 - Investment and Portfolio Management
FNCE 3809 - Introduction to Risk Management
FNCE 3949 - Experiential Learning with Risk Management Industry
FNCE 4129 - Practical Enterprise Risk Mgmt
FNCE 4500 - Corporate Financial Decisions
FNCE 4809 - Property & Casualty Insurance
International elective (3 semester hours)

Total: 27 semester hours

NOTES:

FNCE 3949 will be a specialized offering in lieu of FNCE 3939. The internship or individualized study will be with specific providers of risk management services (including insurance companies), and will be monitored for content and performance.

Students should note that all FNCE courses are not offered every semester. Students should take ACCT 2200, ACCT 2220 and FNCE 3000 courses as early as possible to avoid future problems in their schedules.

For 2010-11, the RMI concentration, comprising of five new courses will be offered with a fixed tuition of \$900 per course (in-state) and \$2,400 per course (nonresident). The courses will not be eligible for COF.

Financial Management and Information Systems Emphasis—BS in Business Administration

The financial management and information systems emphasis provides students with skills that they need to succeed in careers that bridge the fields of finance and information systems.

The financial management and information systems specialty incorporates knowledge of financial management and markets, accounting and information systems and technology. This specialization provides the manager with knowledge of financial information systems, databases, risk management and accounting systems.

Job opportunities include positions that require knowledge of both financial management and business information systems and databases. The specialization provides a solid accounting/finance and information systems background for other finance specialist and business analyst positions as well.

Required Courses

Finance

- FNCE 3500 - Management of Business Capital
- FNCE 3700 - Investment and Portfolio Management
- FNCE 3600 - Financial Markets and Institutions
- FNCE 4500 - Corporate Financial Decisions

FNCE

Accounting

- ACCT 4054 - Accounting Systems and Data Processing
- ACCT 3220 - Intermediate Financial Accounting I
- ACCT 3320 - Intermediate Cost Accounting
- ACCT 4780 - Accounting and Information Systems Processes and Controls or
- ISMG 4780 - Accounting and Information Systems Processes and Controls

ISMG

- ISMG 4500 - Database Management and Applications
- ISMG 4600 - Systems Analysis and Design
- ISMG 4900 - Project Management and Practice

Total: 33 Hours

In addition, students must complete FNCE 4370, International Finance, to fulfill the international studies requirement.

Financial Management Emphasis—BS in Business Administration

The financial management emphasis provides students with the skills needed to succeed in careers in financial management. The business community has affirmed that students need skills in both the accounting and finance areas. The financial management specialty incorporates knowledge of corporate financial management, financial institutions and markets, investments, financial accounting and managerial accounting, accounting information systems and information technology. Career opportunities include corporate financial management, finance/accounting positions with financial institutions and accounting positions that are not CPA-track. The specialization provides a solid finance and accounting background for other business positions as well.

Financial Management Concentration

FNCE 3500 - Management of Business Capital
FNCE 3600 - Financial Markets and Institutions
FNCE 3700 - Investment and Portfolio Management
FNCE 4370 - International Financial Management*
FNCE 4500 - Corporate Financial Decisions
ACCT 3220 Intermediate Financial Accounting I
ACCT 4054 Accounting Systems and Data Processing
ACCT 3320 Intermediate Cost Accounting
ACCT 3000- OR 4000-LEVEL ELECTIVE

Required Courses

- FNCE 3500 - Management of Business Capital
- FNCE 3600 - Financial Markets and Institutions
- FNCE 3700 - Investment and Portfolio Management
- FNCE 3809 - Introduction to Risk Management
- FNCE 4500 - Corporate Financial Decisions
- ACCT 3220 - Intermediate Financial Accounting I
- ACCT 3320 - Intermediate Cost Accounting
- ACCT 4054 - Accounting Systems and Data Processing

Total: 24 Hours

In addition, financial management students must complete FNCE 4370, International Finance, to fulfill the international studies requirement.

* Students should note that all finance and accounting courses are not offered every semester. Students should take the ACCT 2200 and ACCT 2220 courses as soon as possible to avoid future problems in their schedules, since these are prerequisites for all courses in the specialization.

Fine Arts BA – Art History Emphasis

All students pursuing a BA in fine arts with an emphasis in art history must complete 12 semester hours of studio arts and English rhetoric course work, 15 semester hours of required specific art history courses and 18 semester hours of upper-division art history electives. Consult an advisor in the College of Arts & Media at CAMadvising@ucdenver.edu for more information.

General Requirements

- All courses within the major must be completed with a grade of C (2.0) or better.
- All upper-division visual arts courses must be taken at CU Denver unless approved otherwise by visual arts faculty.
- At least 21 semester hours of all visual arts credits (at any level) must be taken at CU Denver.
- At least 18 semester hours of total visual arts courses must be upper-division.

Students must also follow the College of Arts & Media's general degree requirements.

Required Studio Arts and English Rhetoric Courses

- _____ - Two-dimensional Studio Arts course (3 semester hours) - *consult an advisor for approved options*
- _____ - Three-dimensional Studio Arts course (3 semester hours) - *consult an advisor for approved options*
- _____ - Studio Arts Elective (3 semester hours)
- ENGL 2070 - Grammar, Rhetoric and Style

Total: 12 Hours

Required Art History Courses

- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II
- FINE 3600 - Art History Survey III: Non-Western Art
- FINE 4790 - Methods in Art History
- FINE 4951 - Bachelor of Art Thesis

Total: 15 Hours

Upper-Division Art History Electives

Students must complete six upper-division (3000/4000 level) art history electives. (Contact an advisor in the College of Arts & Media at CAMadvising@ucdenver.edu for a complete list of options.)

Total: 18 Hours

Fine Arts BA – Studio Art Emphasis

All students pursuing the BA in studio fine arts must complete 18 semester hours of visual arts foundation courses as well as 21 semester hours in additional lower-division studio courses. They must also complete 30 semester hours in upper-division studio courses and 6 semester hours of upper-division art history. Consult an advisor in the College of Arts & Media at CAMadvising@ucdenver.edu for more information.

General Requirements

- All courses for the major must be completed with a grade of C (2.0) or better.
- All upper-division visual arts courses must be taken at CU Denver unless approved otherwise by visual arts faculty.
- At least 21 semester hours of visual arts credits (at any level) must be taken at CU Denver.
- At least 18 semester hours of total visual arts courses must be upper-division.

Students must also follow the College of Arts and Media's general degree requirements.

Required Visual Arts Foundation Courses

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2015 - Intermedia Foundations
- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II

Total: 18 Hours

Lower-Division Studio Courses

- FINE 1150 - Introduction to Darkroom Photography
- FINE 2010 - The Graphic Novel Workshop
- FINE 2030 - Life Drawing
- FINE 2155 - Introduction to Digital Photography
- FINE 2200 - Painting I
- FINE 2500 - Bronze Casting and Metal Sculpture
- FINE 2510 - Wood and Metal Sculpture

Total: 21 Hours

Upper-Division Studio Courses

- FINE 3015 - Interdisciplinary Practices
- FINE 3030 - The Media of Drawing
- FINE 3161 - The Silver Fine Print

- FINE 3162 - The Digital Fine Print
- FINE 3172 - Digital Bookmaking
- FINE 3240 - Abstract Painting and Drawing
- FINE 3300 - Painting, Drawing and the Printed Image
- FINE 3400 - Introduction to Web Design and Digital Imaging
- FINE 3500 - Modeling and Casting the Figure
- FINE 3510 - Installation Art

Total: 30 Hours

Upper-Division Art History Courses

- FINE 3600 - Art History Survey III: Non-Western Art
- FINE 4990 - Contemporary Art: 1960 to Present

Total: 6 Hours

Fine Arts BFA — 3-D Graphics and Animation, Digital Design, Digital Design - Scientific Media Design Track, Illustration, Painting/Drawing, Photography, Sculpture, Transmedia Emphases

All students pursuing the BFA in fine arts must complete 24 semester hours of visual arts courses and also select an emphasis area, consisting of 57 additional semester hours (66 for the scientific media design track). Students interested in pursuing a double emphasis (e.g., emphases in sculpture and photography) are encouraged to consult a College of Arts & Media advisor to discuss required courses.

General Requirements

- All major courses for the major must be completed with a grade of *C* (2.0) or better.
- All upper-division visual arts courses must be taken at CU Denver unless otherwise approved by visual arts faculty.
- At least 27 semester hours of visual arts credits (at any level) must be taken at CU Denver.
- At least 25 semester hours of total visual arts courses must be upper-division.

Students must also follow the College of Arts & Media's general degree requirements.

Required Visual Arts Courses

To be completed by all BFA-seeking students:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II
- FINE 3015 - Interdisciplinary Practices
- FINE 3600 - Art History Survey III: Non-Western Art
- FINE 4990 - Contemporary Art: 1960 to Present

Total: 24 Hours

3-D Graphics and Animation Emphasis Courses

The 3-D graphics and animation emphasis at the University of Colorado Denver is a competitive and rigorous four-year curriculum focused on preparing students to work in a wide variety of fields that use animated digital computer graphics (CG), including entertainment, film and television, gaming, medicine, and science. The 3-D graphics and animation emphasis courses are billed at a different rate than the standard course tuition due to the state-of-the-art technology used in the program. For more information regarding this rate, contact Howard Cook at howard.cook@ucdenver.edu or the College of Arts & Media Office at CAMadvising@ucdenver.edu.

In order to maintain the highest standards of excellence, acceptance into the 3-D graphics and animation emphasis comes at the end of the first year and is competitive by portfolio review. To be considered, students are required to take the first two courses in the 3-D graphics and animation curriculum, FINE 1810 and FINE 1820. These two courses are open to all College of Arts & Media and CU Denver students. Students wishing to enroll in these entry level courses must contact faculty member Howard Cook at howard.cook@ucdenver.edu or the College of Arts & Media Advising Office at CAMadvising@ucdenver.edu before registering.

Selection for entrance into the 3-D graphics and animation emphasis occurs at the end of the first year of the program and is a competitive process (by faculty review) that includes:

- Submission by the candidate of a "Portfolio Demo Reel". The reel must include original works from FINE 1810 and FINE 1820 as well as representative works created in other Visual Arts courses completed during the first year of the program. The Portfolio Demo Reel must be turned in as a .mov (Quicktime, H.264, 720x404 minimum frame size, 16:9 aspect ratio). Still work should be a component of the reel and should be on screen for at least 3 seconds but no more than 10 seconds. Name and contact information should appear at the beginning and end of the reel. The reel should not be greater in length than 3.5 minutes.
- A "breakdown sheet": the run time at which the work occurs and which describes what work is included on the submission reel, and, if collaborative in nature, what aspect of the work shown was created by the applicant. Turn in .pdf only please.
- A one page double-spaced written statement regarding the applicant's aspirations as a productive and contributing member of the 3-D graphics and animation cohort and the CG community as a whole. Turn in .pdf only please.
- A minimum of a 2.8 GPA in the CU Denver 3-D graphics and animation courses.

The student's submission package must be submitted electronically - \\DACps2>Cook Drop Box>FreshmanPortfolioSubmissions - no later than the first Friday after the spring semester has ended. Notification is by e-mail and/or letter and occurs on or before the first Monday of June of the application year. Upon acceptance, students will be able to enroll in advanced digital animation classes.

Students should show only their best work and show the very best work first. Students should be selective since reels may only be 3.5 minutes long. Music is not recommended for professional reels, but if music is used, students should choose wisely.

Please see <http://www.cu3d.org> or www.ucdenver.edu/academics/colleges/CAM/programs/va/Pages/3danimation.aspx for the emphasis and portfolio information, or contact area head Howard Cook at howard.cook@ucdenver.edu.

Entry Level Courses (No Prerequisites):

- FINE 1810 - Digital Animation Foundations: Producing Animation
- FINE 1820 - Digital Animation Foundations: Introduction to Digital 3D

Core Cadre Course Work (acceptance into the Core Cadre is competitive through portfolio review):

- FINE 2810 - Digital Animation Techniques: Surface Modeling
- FINE 2820 - Digital Animation Techniques: Surface Properties
- FINE 2830 - Digital Animation Techniques: Lighting
- FINE 2850 - Digital Animation Techniques: 3D Character Creation
- FINE 3810 - Digital Animation Studio: Set/Environment Design
- FINE 3820 - Digital Animation Techniques: Rigging and Animation
- FINE 3830 - Digital Animation Technique: Character Animation
- FINE 3845 - Digital Animation Discovery and Preproduction Seminar
- FINE 3850 - Digital Animation Techniques: Dynamic Simulation
- FINE 4810 - Digital Animation Studio: Animation Production I
- FINE 4820 - Digital Animation Studio: Animation Production Thesis

The following courses are required for 3-D graphics and animation students, but are offered at the standard CU Denver tuition rates:

- ENGL 2250 - Introduction to Film
- FINE 2010 - The Graphic Novel Workshop
- or
- FINE 2030 - Life Drawing
- or
- FINE 3414 - Motion Design I
- FINE 4632 - Media History and Aesthetics
- _____ - Visual Arts Electives (9 semester hours) *May include studio, lecture, internship or art history*

Total: 57 Hours

Digital Design Emphasis Courses

The digital design emphasis integrates aesthetic, creative and critical thought with expertise in advanced electronic media. Configured as an interdisciplinary arts and design laboratory, digital design offers a hands-on education combining new art technologies and design concepts in a concentrated theoretical framework that promotes an understanding of the cultural impact and uses of digital technologies. Through this interdisciplinary approach combining arts and communication, digital design strives to produce artists and designers who will use technology in innovative ways in both commercial and artistic spheres.

Students who are applying for entrance into the digital design emphasis are required to submit a written statement, a designed portfolio and unofficial transcript(s) from CU Denver and all previous post-secondary educational institutions. The digital design course sequence starts in fall semester. Students who meet the following requirements can apply. Upon acceptance students will be able to register for upper-division digital design courses.

ELIGIBILITY

University of Colorado Denver Students

- The student has completed, or is in the process of completing, the following foundation studio courses: FINE 1100 - Drawing I, FINE 1400 - Two Dimensional Design, FINE 2405 - Introduction to Digital Design and FINE 2415 - Typography Studio (FINE 2405 and FINE 2415 offered only in fall semester).
- A minimum cumulative fine arts/art history GPA of 2.75.

Transfer Students

- The student has completed and is transferring a minimum of 24 credit hours from a previous institution.
- Student has completed, or is in the process of completing, the equivalents of the following foundation studio courses: FINE 1100 - Drawing I, FINE 1400 - Two Dimensional Design, FINE 2405 - Introduction to Digital Design and FINE 2415 - Typography Studio.
- A minimum cumulative fine arts/art history GPA of 2.75.

APPLICATION PORTFOLIO REQUIREMENTS

To properly prepare your application, refer to <http://designucd.com/index.php/portfolio/> for detailed instructions. Applications are due by 5 p.m. on November 1 or on the following business day if the deadline falls on a weekend or holiday. Students should register and create a page two weeks prior to uploading so that they understand how to format and prepare work.

Applications are only accepted online and must be formatted to the specifications listed on <http://designucd.com/index.php/portfolio/>. The portfolio samples should consist of images (JPGs) and embedded video. Written work should be integrated into the submission. **It is VERY important for students to visit the submission page early and begin uploads one week before the due date.** Late submissions due to technical difficulties on the part of the applicant will NOT be accepted.

Portfolio of Images

- The portfolio must include 10-12 electronic examples of your creative work. At least four portfolio works must be taken from Intro to Digital Design or Typography. Additional works may comprise design, drawing, sculpture, photography, installation, painting, video, etc.
- All artwork must include a corresponding brief explanation of the concept and creative process behind each piece.

GPA

- The applicant must compile a list of all fine arts/art history courses taken, categorized by each college/university attended.
- The applicant must clearly calculate his or her fine arts/art history GPA.

Written Statement

The written statement should address all of the following in a clear, detailed and accurate essay no more than two pages in length. The content of the answers has significant impact on the committee's decision whether to offer admission to the digital design emphasis.

- The applicant describes why he or she would like to be a designer in the digital design emphasis and what goals and expectations the applicant has regarding digital design as a career. Include any special considerations that would be useful for the committee in making a decision, such as a high GPA, art-related extracurricular activities or relevant professional experience.
- The applicant reflects on the artists and designers who have influenced his or her artistic interests. Use at least two examples of each artist's work, discussing both form and content.
- The applicant identifies his or her creative strengths and areas that need further development. How will the applicant best utilize strengths? How does the applicant plan to resolve any deficiencies in work and performance?
-

Course Transcripts

These may be official or unofficial transcripts from CU Denver and previous post-secondary institutions.

The Evaluation Process

- A committee of design faculty members reviews the application packet. The decision for admission into the digital design emphasis is based on the portfolio images, written statement and grades/GPA. For acceptance, the committee looks for a high level of skill and sophistication in studio, written and presentation skills.
- If not admitted into the digital design emphasis, a student has the choice of attempting the review process again the following year or selecting another emphasis. Students not admitted into the digital design emphasis are encouraged to schedule a meeting with a digital design faculty member to learn of ways to improve portfolios for future submissions.

The application is evaluated on the following criteria:

- **Presentation** - Is the portfolio well crafted and well organized in content and presentation? Are all of the required components included?
- **Visual Literacy** - Does the portfolio reflect sensitivity to design concepts and visual logic, and does it demonstrate fundamental understanding of composition? Does the work communicate effectively?
- **Technical Skill** - Does the portfolio reflect a strong knowledge of tools and materials and a strong aptitude for digital design skills?
- **Conceptual Skills** - Do the portfolio and written statement demonstrate analytical thinking as it applies to visual art and design? Is there a developing conceptual exploration of the digital medium?

- **Written Statement** - Does the statement reflect an understanding of digital design and explain your goals as a student in the digital design emphasis? Are potential strengths and weaknesses addressed clearly?
- **Academic Performance** - Do your grades reflect a commitment to learning and growth?

Questions

Please contact CAMadvising@ucdenver.edu for emphasis and portfolio information, or contact digital design area head Brian DeLevie at brian.delevie@ucdenver.edu.

Digital Design Electives

FINE 3438 - Text, Image and Electronic Art

FINE 4434 - Virtual Landscapes

Digital Design Emphasis Course Requirements:

- FINE 2405 - Introduction to Digital Design
 - FINE 2415 - Typography Studio
 - FINE 3414 - Motion Design I
 - FINE 3415 - Design Studio I
 - FINE 3424 - Interactive Media
 - FINE 3434 - 3D Motion Design
 - FINE 3444 - Interactive Media II
 - FINE 3454 - Motion Design II
 - FINE 3464 - Design Studio II
 - FINE 3474 - Narrative and Experience
 - FINE 4400 - Design Studio III
 - FINE 4480 - The Practice of Design
 - FINE 4495 - Design Studio IV: Thesis (It is highly suggested that ALL art history courses be completed prior to enrolling in FINE 4495)
 - FINE 4600 - History of Modern Design:Industrial Revolution-Present
 - FINE 4632 - Media History and Aesthetics
- _____ - Studio Arts/Visual Arts Electives (12 semester hours) *Consult advisor about course selection*

Total: 57 Hours

Digital Design Emphasis - Scientific Media Design Track Courses

Through a truly interdisciplinary approach that integrates design, art and science, the scientific media design track (offered within the digital design emphasis) provides an educational experience that combines collaboration, exploration, project-based learning and real world problem solving skills. Theoretical as well as practical knowledge prepares graduates for successful careers designing clear, accurate, communicative works for science and medicine.

Admission into the scientific media design track is by portfolio review. This review process occurs November 1 (or on the following business day if the deadline falls on a weekend or a holiday) during a student's sophomore year after the student has met the following eligibility criteria.

University of Colorado Denver Students

The student has completed, or is in the process of completing, the following foundation studio courses:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 2405 - Introduction to Digital Design
- FINE 2415 - Typography Studio
- FINE 2428 - Introduction to Scientific Media Design

A minimum cumulative fine arts/art history GPA of 2.75. Please note: FINE 2405, FINE 2415 and FINE 2428 are only offered during the fall semester.

- BIOL 2051 - General Biology I and BIOL 2071 - General Biology Laboratory I
Grade of C (2.0) or better required

Transfer Students

The student has completed and is transferring a minimum of 24 semester hours from a previous institution. The student has also completed, or is in the process of completing, the equivalents of the following foundation studio courses:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 2405 - Introduction to Digital Design
- FINE 2415 - Typography Studio

A minimum cumulative fine arts/art history GPA of 2.75

- BIOL 2051 - General Biology I and BIOL 2071 - General Biology Laboratory I
Grade of C (2.0) or better required

Students who are applying for entrance into the scientific media design track are required to submit a portfolio that consists of (1) a written statement, (2) a digital portfolio and (3) unofficial transcript(s) from all previous post-secondary education institutions. Upon acceptance into the scientific media design track, students may register for upper-division classes in the scientific media design curriculum.

APPLICATION PORTFOLIO REQUIREMENTS

To properly prepare your application, refer to <http://designucd.com/index.php/portfolio/> for detailed instructions. Applications are due by 5 p.m. on November 1 or on the following business day if the deadline falls on a weekend or holiday. Students should register and create a page two weeks prior to uploading so that they understand how to format and prepare work.

Applications are only accepted online and must be formatted to the specifications listed on <http://designucd.com/index.php/portfolio/>. The portfolio samples should consist of images (.jpgs) and embedded video. Written work should be integrated into the submission. It is VERY important for students to visit the submission page early and begin uploads one week before the due date. Late submissions due to technical difficulties on the part of the applicant will NOT be accepted.

Portfolio of Images

- The portfolio must include 10-12 electronic examples of your creative work. At least four portfolio works must be taken from Intro to Scientific Media Design or Intro to Digital Design. Additional works may comprise design, drawing, sculpture, photography, installation, painting, video, etc.
- All artwork must include a corresponding brief explanation of the concept and creative process behind each piece.

GPA

- The applicant must compile a list of all fine arts/art history courses taken, categorized by each college/university attended.
- The applicant must clearly calculate his or her fine arts/art history GPA.

Written Statement

The written statement should address all of the following in a clear, detailed and accurate essay no more than two pages in length. The content of the answers has significant impact on the committee's decision whether to offer admission to the scientific media design track.

- The applicant describes why he or she would like to be a designer in the scientific media design track and what goals and expectations the applicant has regarding scientific media design as a career. Include any special considerations that would be useful for the committee in making a decision, such as a high GPA, art-related extracurricular activities or relevant professional experience.
- The applicant reflects on the artists and designers who have influenced his or her artistic interests. Use at least two examples of each artist's work, discussing both form and content.
- The applicant identifies his or her creative strengths and areas that need further development. How will the applicant best utilize strengths? How does the applicant plan to resolve any deficiencies in work and performance?

Course Transcripts

These may be official or unofficial transcripts from CU Denver and previous post-secondary institutions.

The Evaluation Process

- A committee of design faculty members reviews the application packet. The decision for admission into the scientific media design track is based on the portfolio images, written statement and grades/GPA. For acceptance, the committee looks for a high level of skill and sophistication in studio, written and presentation skills.
- If not admitted into the scientific media design track, a student has the choice of attempting the review process again the following year or selecting another emphasis outside of digital design. Students not admitted into the scientific media design track are encouraged to schedule a meeting with a scientific media design faculty member to learn of ways to improve portfolios for future submissions.

The application is evaluated on the following criteria:

- **Presentation** - Is the portfolio well crafted and well organized in content and presentation? Are all of the required components included?
- **Visual Literacy** - Does the portfolio reflect sensitivity to design concepts and visual logic, and does it demonstrate fundamental understanding of composition? Does the work communicate effectively?
- **Technical Skill** - Does the portfolio reflect a strong knowledge of tools and materials and a strong aptitude for digital design skills?
- **Conceptual Skills** - Do the portfolio and written statement demonstrate analytical thinking as it applies to visual art and design? Is there a developing conceptual exploration of the digital medium?
- **Written Statement** - Does the statement reflect an understanding of scientific media design and explain your goals as a student in the scientific media design track? Are potential strengths and weaknesses addressed clearly?
- **Academic Performance** - Do your grades reflect a commitment to learning and growth?

Questions

Please contact CAMadvising@ucdenver.edu for track and portfolio information, or contact scientific media design Professor Travis Vermilye at travis.vermilye@ucdenver.edu.

Track Course Requirements in Sciences

- BIOL 2051 - General Biology I (also applies toward Core Biological/Physical Sciences requirement)
- BIOL 2071 - General Biology Laboratory I (also applies toward Core Biological/Physical Sciences requirement)
- BIOL 2061 - General Biology II (also applies toward Core Biological/Physical Sciences requirement)

- BIOL 2081 - General Biology Laboratory II (also applies toward Core Biological/Physical Sciences requirement)
- CHEM 2031 - General Chemistry I
- CHEM 2038 - General Chemistry Laboratory I
- _____ - Science Elective (3 semester hours) - Needs approval from Area Head.

Track Course Requirements in Fine Arts

- FINE 2030 - Life Drawing
- FINE 2405 - Introduction to Digital Design
- FINE 2415 - Typography Studio
- FINE 2428 - Introduction to Scientific Media Design
- FINE 3414 - Motion Design I
- FINE 3415 - Design Studio I
- FINE 3424 - Interactive Media
- FINE 3434 - 3D Motion Design
- FINE 3444 - Interactive Media II
- FINE 3448 - Scientific Media Design I
- FINE 3454 - Motion Design II
- FINE 4020 - Anatomy for the Artist
- FINE 4448 - Scientific Media Design II
- FINE 4495 - Design Studio IV: Thesis
- _____ - Studio Arts/Visual Arts Electives (9 semester hours) *Consult advisor about course selection*

Total: 66 Hours

Illustration Emphasis Courses

Illustration is the art of making ideas communicate through visual art. The profession spans a wide range of applications, encompassing graphic novels, scientific illustration, visual development for animation and games, children's books, interactive illustration and anything an illustrator can bring to life. The field includes editorial, advertising, and product illustration. Given the vast array of opportunities, today's illustrators must understand how to communicate effectively with a chosen medium and situate their work professionally within a particular market.

Students in the illustration emphasis receive instruction in conceptual illustration, digital illustration, rendering, perspective, painting, exhibition preparation, professional practices and the use of various artistic and illustration techniques. In preparation for a professional illustration career, the course work allows students to master numerous essential digital and traditional tools.

Students who are applying for entrance into the illustration emphasis are required to submit a written statement, a portfolio of images and unofficial transcript(s) from CU Denver and all previous post-secondary educational institutions. The illustration course sequence starts in the

fall semester. Students who meet the following requirements can apply. Upon acceptance students will be able to register for upper-division illustration courses.

ELIGIBILITY

University of Colorado Denver Students

The student has completed, or is in the process of completing, the following courses:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2015 - Intermedia Foundations
- FINE 2030 - Life Drawing
- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II

A minimum of cumulative fine arts/art history GPA 2.75

Transfer Students

The student has completed and is transferring a minimum of 24 credit hours from a previous institution.

Student has completed, or is in the process of completing, the equivalents of the following courses:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2030 - Life Drawing
- FINE 2600 - Art History Survey I

A minimum of cumulative fine arts/art history GPA 2.75

PORTFOLIO REQUIREMENTS

Students applying to the illustration emphasis should submit a CD or DVD to the area head of painting/drawing and illustration, Mary K. Connelly, in room 815G of the CU Building, 1250 14th Street. The CD or DVD is due by 5 p.m. on November 1 or on the following business day if the deadline falls on a weekend or holiday. The CD or DVD should include contact information and an email address for notification for the results of the portfolio review. Late submissions will not be accepted.

(NOTE: Portfolio submissions may switch to an online process; please consult Mary Connelly (mary.connelly@ucdenver.edu) for details and updates before submitting your portfolio.)

The CD or DVD must include the following:

Portfolio of Images

- The portfolio must include 10, but no more than 15, examples of creative work. At least six portfolio images should be drawings done from life (examples from FINE 1100 Drawing I—still life, perspective and/or figure drawings). Additional examples may be in the form of design, drawing, painting and printmaking.
- Image list (Word doc) with title, year, media and size, and a brief explanation of each artwork. All images should be formatted as JPEGs. Limit file size to 1 megabyte. File names should correspond to the list, be numbered, include the student's last name, and then an underscore and a brief title/description.

Examples:

1_Connelly_Figurecharcoal.jpeg

2_Connelly_StillLifeacrylic.jpeg

Written Statement

The written statement must also be saved to the disk. Please address the following in a clear, detailed essay no more than one page in length (or 500 words).

- The applicant should describe why he or she would like to study illustration and what goals and expectations the applicant has regarding a career as an illustrator.
- Include any special considerations that would be useful for the committee in making a decision, such as Dean's List, GPA, internships, art-related extracurricular activities or relevant professional experience.
- The applicant should identify his or her creative strengths and areas that need further development.

Course Transcripts

These may be official or unofficial transcripts from CU Denver and previous post-secondary institutions.

The Evaluation Process

- A committee of painting/drawing and illustration faculty members reviews the portfolio packets. Acceptance into the illustration emphasis is based on the portfolio images, written statement and GPA.
- If not admitted into the illustration emphasis, a student has the choice of attempting the review process again the following year or selecting another emphasis. Students not admitted into the emphasis are encouraged to schedule a meeting with the area head of illustration to learn ways to improve their portfolios for future submissions.

The application is evaluated on the following criteria:

- **Presentation** - The portfolio should be well crafted and well organized in content and presentation.
- **Technical Skill** - The portfolio should demonstrate strong proficiency in drawing, composition, design and color.

- **Creativity** – The portfolio should demonstrate creative choices in content and aesthetics.
- **Conceptual Skills** - The portfolio and written statements should reflect analytical thinking and conceptual exploration of the foundations of drawing and design.
- **Written Statement** - The statement should outline academic and artistic goals, addressing any potential strengths and weaknesses.
- **Academic Performance** - The grades must reflect a commitment to learning and growth.
- All required documentation included (images, written statement and transcripts).

Questions

Please contact CAMadvising@ucdenver.edu for emphasis and portfolio information, or contact illustration area head Mary K. Connelly at mary.connelly@ucdenver.edu.

Illustration Emphasis Course Requirements

- FINE 2010 - The Graphic Novel Workshop
- FINE 2015 - Intermedia Foundations
- FINE 2030 - Life Drawing
- FINE 2155 - Introduction to Digital Photography
- FINE 2200 - Painting I
- FINE 2405 - Introduction to Digital Design
- FINE 3001 - Digital Illustration Studio
- FINE 3002 - Spatial Draw for Illustrators
- FINE 3260 - Portraiture
- FINE 3300 - Painting, Drawing and the Printed Image
- FINE 4001 - Adv Illustration Studio I
- FINE 4002 - Adv Illustration Studio II
- FINE 4003 - Adv Illustration Studio III
- FINE 4020 - Anatomy for the Artist
- _____ - Upper-division Art History Elective (3 semester hours)
- _____ - Studio Arts Electives (6 semester hours)
- _____ - Visual Arts Electives (6 semester hours) *May include studio, lecture, internship or art history*

Total: 57 Hours

Painting/Drawing Emphasis Courses

The painting and drawing emphasis takes a contemporary approach that works to integrate painterly and drawing concerns with focused artistic practice and developing critical dialogue. As a studio discipline, painting and drawing is as rich in visual arts history as it is charged with contemporary innovation. Painting and drawing as a studio practice encourages a multi-faceted dialogue within this continuum. Students are introduced to a variety of techniques and ideas, exposed to several art-historical and contemporary practices, and are challenged to develop a studio process that involves both formal and conceptual impact. Painting and drawing classes are interdisciplinary in that they allow the use of multiple materials and/or techniques in the

production of a successful art piece or body of work. Students come away with a strong studio skill base, an engaged conceptual framework, and an ability to take part in the exciting discourse of contemporary painting and drawing.

Students who are applying for entrance into the painting and drawing emphasis are required to submit a written statement, a portfolio of images and unofficial transcript(s) from CU Denver and all previous post-secondary educational institutions. The painting and drawing course sequence starts in fall semester. Students who meet the following requirements can apply. Upon acceptance students will be able to register for upper-division courses in painting and drawing.

ELIGIBILITY

University of Colorado Denver Students

The student has completed, or is in the process of completing, the following courses:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2015 - Intermedia Foundations
- FINE 2030 - Life Drawing
- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II

A minimum cumulative fine arts/art history GPA of 2.75

Transfer Students

The student has completed and is transferring a minimum of 24 credit hours from a previous institution.

Student has completed or is in the process of completing the equivalents of the following courses:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2030 - Life Drawing
- FINE 2600 - Art History Survey I

A minimum cumulative fine arts/art history GPA of 2.75

PORTFOLIO REQUIREMENTS

Students applying to the painting and drawing emphasis should submit a CD or DVD to the area head of painting, drawing and illustration, Mary K. Connelly, in room 815G of the CU Building, 1250 14th Street. The CD or DVD is due by 5 p.m. on November 1, or on the following business day if the deadline falls on a weekend or holiday. The CD or DVD should include contact information and an email address for notification for the results of the portfolio review. Late submissions will not be accepted.

(NOTE: Portfolio submissions may switch to an online process; please consult Mary Connelly at mary.connelly@ucdenver.edu for details and updates before submitting your portfolio.)

The CD or DVD must include the following:

Portfolio of Images

- The portfolio must include 10, but no more than 15, examples of creative work. At least six portfolio images must be drawings done from life (examples from FINE 1100 Drawing I and FINE 2030 Life Drawing—still life, perspective and figure drawings). Also provide at least two portfolio pieces that demonstrate an understanding of color. Additional examples may be in the form of design, drawing, painting and printmaking.
- Image list (Word doc) with title, year, media and size, and a brief explanation of each artwork. All images should be formatted as JPEGs. Limit file size to 1 megabyte. File names should correspond to the list, be numbered, include the student's last name, and then an underscore and a brief title/description.

Examples:

1_Connelly_Figurecharcoal.jpeg

2_Connelly_StillLifeacrylic.jpeg

Written Statement

The written statement must also be saved to the disk. Please address the following in a clear, detailed essay no more than one page in length (or 500 words).

- The applicant should describe why he or she would like to study painting and drawing, and what goals and expectations the applicant has regarding a career as an artist.
- Include any special considerations that would be useful for the committee in making a decision, such as Dean's List, GPA, internships, art-related extracurricular activities or relevant professional experience.
- The applicant should identify his or her creative strengths and areas that need further development.

Course Transcripts

These may be official or unofficial transcripts from CU Denver and previous post-secondary institutions.

The Evaluation Process

- A committee of painting and drawing faculty members reviews the portfolio packets. Acceptance into the painting and drawing emphasis is based on the portfolio images, written statement and GPA.
- If not admitted into the painting and drawing emphasis, a student has the choice of attempting the review process again the following year or selecting another

emphasis. Students are encouraged to schedule a meeting with the area head of painting and drawing to learn ways to improve their portfolios for future submissions.

The application is evaluated on the following criteria:

- **Presentation** - The portfolio should be well crafted and well organized in content and presentation.
- **Technical Skill** - The portfolio should demonstrate strong proficiency in drawing, composition, design and color.
- **Creativity** – The portfolio should demonstrate creative choices in content and aesthetics.
- **Conceptual Skills** - The portfolio and written statements should reflect analytical thinking and conceptual exploration of the foundations of drawing and design.
- **Written Statement** - The statement should outline academic and artistic goals, addressing any potential strengths and weaknesses.
- **Academic Performance** - The grades must reflect a commitment to learning and growth.
- All required documentation included (images, written statement and transcripts).

Questions

Please contact CAMadvising@ucdenver.edu for emphasis and portfolio information, or contact painting/drawing area head Mary K. Connelly at mary.connelly@ucdenver.edu.

Painting/Drawing Emphasis Course Requirements

- FINE 2010 - The Graphic Novel Workshop
- FINE 2015 - Intermedia Foundations
- FINE 2030 - Life Drawing
- FINE 2200 - Painting I
- FINE 3030 - The Media of Drawing
- FINE 3050 - Figure Painting
- FINE 3200 - Intermediate Painting and Drawing I
- FINE 3210 - Intermediate Painting and Drawing II
- FINE 3240 - Abstract Painting and Drawing
- FINE 3300 - Painting, Drawing and the Printed Image
- FINE 4100 - Painting & Drawing Theory & Practice
- FINE 4200 - Advanced Painting and Drawing I
- FINE 4210 - Advanced Painting/Drawing II
- FINE 4950 - Studio BFA Thesis
- _____ - Upper-division Art History Elective (3 semester hours)
- _____ - Studio Arts Electives (6 semester hours) *FINE 3400 Intro to Web Design or FINE 3405 Intro to Digital Video is strongly recommended.*
- _____ - Visual Arts Electives (6 semester hours) *May include studio, lecture, internship or art history*

Total: 57 Hours

Photography Emphasis Courses

Students in the photography emphasis develop technical skills in traditional and digital photographic practice while refining creative and conceptual approaches to the medium. The photography curriculum emphasizes individual artistic development while integrating the history of photography as well as contemporary work and critical theory. Through an exploration of a variety of photographic methods, students are given the tools to create visually compelling photographs that communicate their artistic ideas.

Students who apply for entrance into the photography emphasis must submit a written statement, a portfolio of images, and unofficial transcript(s) from CU Denver and all previous post-secondary educational institutions. Students who meet the following requirements and are accepted into the emphasis will be eligible to register for upper-division photography courses.

ELIGIBILITY

University of Colorado Denver students and transfer students must have a minimum cumulative GPA of 2.75 in fine art and art history courses. In order to apply to the photography emphasis, students must have completed, or be in the process of completing, the following courses:

FINE 1100 - Drawing I

FINE 1150 - Introduction to Darkroom Photography

FINE 1400 - Two Dimensional Design

FINE 2155 - Introduction to Digital Photography

FINE 2600 - Art History Survey I

PORTFOLIO REQUIREMENTS

Students applying to the emphasis should submit a CD or DVD to the area head of photography, Carol Golemboski, in room 815M of the CU Building. The CD or DVD is due by 5 p.m. on November 1, or on the following business day if the deadline falls on a weekend or holiday. The CD or DVD must include contact information and an email address for notification of the results of the portfolio review. Late submissions will not be accepted.

(NOTE: Portfolio submissions may switch to an online process; please consult Carol Golemboski (carol.golemboski@ucdenver.edu) for details and updates before submitting your portfolio.)

The CD or DVD must include the following:

Portfolio of Images

- The portfolio must include 10 examples of creative work. At least six portfolio images should be photographic (three images from Introduction to Darkroom Photography and three images from Introduction to Digital Photography). Additional examples may be in the form of design, drawing, sculpture, installation, painting and/or video.

- All portfolio images must include a brief explanation of the concept and creative process behind each piece.
- All images should be formatted as JPEGs.

Written Statement

The written statement must address the following in a clear, detailed essay no more than two pages in length.

- The applicant should describe why he or she would like to be in the photography emphasis and what goals and expectations the applicant has regarding photography as a career. Include any special considerations that would be useful for the committee in making a decision, such as a high GPA, art-related extracurricular activities or relevant professional experience.
- The applicant should reflect on the artists and photographers who have influenced his or her artistic interests. Reference at least two examples of their work, discussing both form and content.
- The applicant should identify his or her creative strengths and areas that need further development.

Course Transcripts

These may be official or unofficial transcripts from CU Denver and previous post-secondary institutions.

The Evaluation Process

- A committee of photography faculty members reviews the portfolio packets. Acceptance into the photography emphasis is based on the portfolio images, written statement and GPA.
- If not admitted into the photography emphasis, a student has the choice of attempting the review process again the following year or selecting another emphasis. Students not admitted into the photography emphasis are encouraged to schedule a meeting with the area head of photography to learn ways to improve their portfolios for future submissions.

The application is evaluated on the following criteria:

- **Presentation** - The portfolio should be well crafted and well organized in content and presentation.
- **Technical Skill** - The portfolio should demonstrate strong knowledge of the fundamental tools of photography including camera functions, analog film development and printing, digital imaging, as well as an understanding of design, form, composition and color.
- **Creativity** – The portfolio should demonstrate creative choices in content and aesthetics.

- **Conceptual Skills** - The portfolio and written statements should reflect analytical thinking and conceptual exploration of the photography medium.
- **Written Statement** - The statement should outline academic and artistic goals, addressing any potential strengths and weaknesses.
- **Academic Performance** - The grades must reflect a commitment to learning and growth.
- All required documentation included (images, written statement and transcripts).

Questions

Please contact CAMadvising@ucdenver.edu for emphasis and portfolio information, or contact photography area head Carol Golemboski at carol.golemboski@ucdenver.edu

Photography Emphasis Course Requirements

- FINE 1150 - Introduction to Darkroom Photography
- FINE 2015 - Intermedia Foundations
- FINE 2155 - Introduction to Digital Photography
- FINE 3160 - Color and Studio Lighting
- FINE 3161 - The Silver Fine Print
Note: must be completed before 3171
- FINE 3162 - The Digital Fine Print
Note: must be completed before 3172
- FINE 3171 - Concepts and Processes in Photography
- FINE 3172 - Digital Bookmaking
- FINE 3630 - History of Photography
- FINE 3631 - Photography: Theory and Criticism
- FINE 3635 - Photography Now
- FINE 4195 - Advanced Photography I
- FINE 4196 - Advanced Photography II
- FINE 4950 - Studio BFA Thesis
_____ - Studio Arts Electives (9 semester hours)
_____ - Visual Arts Electives (6 semester hours) *May include studio, lecture, internship or art history*

Total: 57 Hours

Sculpture Emphasis Courses

Portfolio review is not required for admission to the sculpture emphasis.

- FINE 2015 - Intermedia Foundations
- FINE 2500 - Bronze Casting and Metal Sculpture
- FINE 2510 - Wood and Metal Sculpture
- FINE 3500 - Modeling and Casting the Figure
- FINE 3510 - Installation Art
- FINE 3515 - Public Art
- FINE 3525 - Environmental Sculpture
- FINE 3530 - Iron Casting

- FINE 3535 - Sculpture Rendering
- FINE 4500 - Kinetic Sculpture
- FINE 4505 - Performance Art
- FINE 4510 - Advanced Sculpture
- FINE 4950 - Studio BFA Thesis
 - _____ - Upper-division Art History Elective (3 semester hours)
 - _____ - Studio Arts Electives (9 semester hours)
 - _____ - Visual Arts Electives (6 semester hours) *May include studio, lecture, internship or art history*

Total: 57 Hours

Transmedia Emphasis Courses

Portfolio review is not required for admission to the transmedia emphasis.

- FINE 2015 - Intermedia Foundations
- FINE 2405 - Introduction to Digital Design
- FINE 2510 - Wood and Metal Sculpture
- FINE 3400 - Introduction to Web Design and Digital Imaging
- FINE 3405 - Introduction to Digital Video
- FINE 3434 - 3D Motion Design
- FINE 3438 - Text, Image and Electronic Art
- FINE 3474 - Narrative and Experience
- FINE 3510 - Installation Art
- FINE 3535 - Sculpture Rendering
- FINE 4434 - Virtual Landscapes
- FINE 4500 - Kinetic Sculpture
- FINE 4510 - Advanced Sculpture
- FINE 4950 - Studio BFA Thesis
 - _____ - Upper-division Art History Elective (3 semester hours)
 - _____ - Studio Arts Electives (9 semester hours)
 - _____ - Visual Arts Electives (3 semester hours) *May include studio, lecture, internship or art history*

Total: 57 Hours

French BA

The French program offers courses in advanced language, linguistics, literature, civilization, culture and business, all taught exclusively in French. A minor is also offered. All French majors are strongly encouraged to participate in a study abroad program. Please see your French department advisor for information about opportunities to include study abroad as part of your major.

Admission and Grade Requirements

To be admitted to major status in French, students must have an overall GPA of C+ (2.3). The minimum grade acceptable in any French course applied to a French major is C (2.0). The grade point average in all courses applied to a French major at CU Denver must be 2.5. No courses taken on a pass/fail basis may be credited toward a French major. Upon declaring a major in French, each student will be assigned to a faculty advisor with whom the student should consult at least once per semester thereafter. It is especially important that students have their transcripts reviewed by their advisor before enrolling in their final 30 credit hours at CU Denver. Failure to do so may result in delay of graduation. Students presenting four years of high school French (Level IV) for admission to CU Denver must see a French advisor before enrolling in courses for the major. Students with advanced placement credits from high school must see a French advisor about course equivalencies. The Department of Modern Languages does not accept CLEP credits.

Honors in French

Qualified majors will automatically graduate with regular honors in French. Faculty occasionally nominate students for extra course work leading to higher levels of honors in French. For information, consult the French advisor in the Department of Modern Languages.

Outcomes Assessment

During their final semester in the language, French major students participate in an oral proficiency interview and take a written outcomes assessment exam to measure their level of proficiency and mastery of key concepts.

Residency Requirement

All students majoring in French must complete 30 semester hours of upper-division French courses (courses numbered 3000 and above). A minimum of 18 of those semester hours must be taken from the faculty in French at CU Denver. Courses taken at other institutions while a student is enrolled at CU Denver may be applied to the major only with departmental approval before enrollment in those courses. Students studying French for the professions must also take courses in other areas. Requirements for both tracks are outlined below.

Course Requirements for the Major

Track A: Language, Literature and Culture

Students wishing to improve their linguistic skills as well as their knowledge of Francophone literature and culture may choose this track.

Required Courses

- FREN 3010 - French Phonetics and Pronunciation
- FREN 3020 - Oral Practice
- FREN 3050 - Advanced Grammar and Composition
- FREN 3060 - Advanced French Language Skills

Total: 12 Hours

Electives

Three courses at the 4000 level: **9 semester hours**

Three electives at 3000 or 4000 level: **9 semester hours**

Note: students must take at least one literature course and at least one culture or civilization course.

Total: 18 Hours

Track A Major Total: 30 Hours

Track B: International Language and Culture for the Professions

This option in the French major offers career possibilities, both in government and private industry, at home and abroad. Languages are useful in business, industry, commerce, civil service, law, library science, media, science, economics, health and social sciences. Students who follow this course of study could also qualify as teachers of general business subjects in bilingual as well as traditional school systems. Students interested in this track should contact the French advisor in the Department of Modern Languages as early as possible in their academic career, but not later than the second semester of the sophomore year.

Prerequisites

(these courses do not count toward the major total of 48 hours)

- ECON 2012 - Principles of Economics: Macroeconomics
- ECON 2022 - Principles of Economics: Microeconomics
- MATH 1070 - Algebra for Social Sciences and Business
- -OR- MATH 1110 - College Algebra
(or higher level math course)

Required French Courses

- FREN 1000 - Introduction to Cultures of the French- Speaking World
- FREN 3020 - Oral Practice
- FREN 3050 - Advanced Grammar and Composition
- FREN 3060 - Advanced French Language Skills
- FREN 3112 - Survey of French Literature I
- -OR- FREN 3122 - Survey of French Literature II
- FREN 3130 - Current Topics of the French-Speaking World
- -OR- FREN 3140 - Contemporary Francophone Cultures
- FREN 4050 - Advanced French for Business
- FREN 4082 - Introduction to Translation
- FREN 4210 - French Civilization - Twentieth and Twenty-First Centuries

Total: 27 Hours

French Electives

Choose two (at least one at 4000 level) from:

- FREN 3120 - French Cultural Identities: Myths and Realities
 - FREN 3130 - Current Topics of the French-Speaking World
 - FREN 3140 - Contemporary Francophone Cultures
 - FREN 4200 - French Civilization Through the Nineteenth Century
- Any 3000- or 4000-level literature course (not already taken from required list)

Total: 6 Hours

Business Courses

(please be aware of prerequisites in business course descriptions)

- ACCT 2200 - Financial Accounting and Financial Statement Analysis
 - MGMT 1000 - Introduction to Business
 - MGMT 3000 - Managing Individuals and Teams
 - MKTG 3000 - Principles of Marketing
- One 3000-level course in international business

Total: 15 Hours

Recommended

Official proficiency exam (Paris Chamber of Commerce)

Track B Major Total: 48 Hours

Secondary Foreign Language Teacher Licensure Program

With this option, students complete a major in French along with additional course work required for certification to teach French in the public schools. This program should be chosen early in the students' careers. See the description of Undergraduate Teacher Licensure on the School of Education & Human Development (SEHD) Urban Community Teacher Education program page for more information. You may also contact the CLAS Advising Office (phone 303-556-2555 or visit North Classroom, 4002) and the French advisor for more information.

Geography BA

Requirements for Major in Geography

Students must declare a major by the time they have completed 60 semester hours of course work. The geography program (within the Department of Geography and Environmental Sciences) offers a BA degree that includes a full range of courses in the fundamentals of geography taught mainly by full-time faculty. Five degree options are available for the major in geography: general, environmental science, environmental studies, urban studies and planning and earth science. Total semester-hour requirements vary among the five options, but all options require a minimum of 24 hours of upper-division credit. In addition, for each option, at least 15 semester hours must be taken at CU Denver.

- Option 1—General Geography
- Option 2—Environmental Science
- Option 3—Environmental Studies
- Option 4—Urban Studies and Planning
- Option 5—Earth Science

Option 1—General Geography

Option Advisors: Frederick B. Chambers and Brian Page

OPTION 1 REQUIREMENTS

Lower division

- GEOG 1202 - Introduction to Physical Geography
- GEOG 1302 - Introduction to Human Geography
- GEOG 2080 - Introduction to Mapping and Map Analysis

Upper division

- GEOG 3232 - Weather and Climate
- GEOG 3411 - Globalization and Regional Development
- GEOG 4080 - Introduction to GIS

Total: 18 Hours

ADDITIONAL REQUIREMENTS

Choose six additional courses, **including at least one course from each of the following subfields:**

Physical Geography

- GEOG 3240 - Colorado Climates
- GEOG 3302 - Water Resources
- GEOG 4010 - Landscape Geochemistry
- GEOG 4020 - Earth Environments and Human Impacts
- GEOG 4240 - Geomorphology
- GEOG 4270 - Glacial Geomorphology
- GEOG 4280 - Environmental Hydrology

Human Geography

- ENVS 1342 - Environment, Society and Sustainability
- GEOG 1602 - Introduction to Urban Studies
- GEOG 2202 - Natural Hazards
- GEOG 3300 - Population and Resources in the World Environment
- GEOG 3401 - Geography of Food and Agriculture
- GEOG 3430 - Geography of Tourism
- GEOG 3440 - Ecotourism
- GEOG 3501 - Geography of Health
- GEOG 4265 - Sustainability in Resources Management
- GEOG 4335 - Contemporary Environmental Issues
- GEOG 4350 - Environment and Society in the American Past
- GEOG 4420 - The Politics of Nature
- GEOG 4440 - Science, Policy and the Environment
- GEOG 4450 - Urban Food and Agriculture: Perspectives and Research
- GEOG 4640 - Urban Geography: Denver and the U.S.
- GEOG 4680 - Urban Sustainability: Perspectives and Practice
- GEOG 4710 - Disasters, Climate Change, and Health

Regional Geography

- GEOG 1102 - World Regional Geography
- GEOG 3100 - Geography of Colorado
- GEOG 3120 - Geography of Europe
- GEOG 3130 - Central America and the Caribbean
- GEOG 3140 - Geography of South America
- GEOG 3150 - Middle East
- GEOG 3160 - Geography of China

Techniques for Geographical Analysis

- GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing

- GEOG 4070 - Remote Sensing II: Advanced Remote Sensing
- GEOG 4081 - Cartography and Computer Mapping
- GEOG 4085 - GIS Applications for the Urban Environment
- GEOG 4090 - Environmental Modeling with Geographic Information Systems
- GEOG 4095 - Deploying GIS Functionality on the Web
- GEOG 4220 - Environmental Impact Assessment
- GEOG 4230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 4235 - GIS Applications in the Health Sciences
- GEOG 4770 - Applied Statistics for the Natural Sciences

Total: 18 Hours

OPTION TOTAL: 36 HOURS

Option 2—Environmental Science

Option Advisor: Frederick B. Chambers and Casey Allen

Option 2 allows geography majors to concentrate on course work in environmental science.

ANCILLARY COURSES

Option 2 students must take one general biology and one general chemistry course (both with labs), OR a sequence of either (BIOL 2051 and 2061 with labs or CHEM 2031 and 2061 with labs). If applying to the MS in Environmental Sciences program, students must have taken both sequences. Course choices with descriptions are below:

- BIOL 2051 - General Biology I
- *and* BIOL 2071 - General Biology Laboratory I
(4 semester hours total), followed by:
- BIOL 2061 - General Biology II
- *and* BIOL 2081 - General Biology Laboratory II
(4 semester hours total)
- CHEM 2031 - General Chemistry I
- *and* CHEM 2038 - General Chemistry Laboratory I
(4 semester hours total), followed by:
- CHEM 2061 - General Chemistry II
- *and* CHEM 2068 - General Chemistry Laboratory II
(5 semester hours total)

OPTION 2 REQUIREMENTS

Lower division

- ENVS 1042 - Introduction to Environmental Sciences
- GEOG 1202 - Introduction to Physical Geography

- GEOG 1302 - Introduction to Human Geography
- -OR- ENVS 1342 - Environment, Society and Sustainability
- GEOG 2080 - Introduction to Mapping and Map Analysis

Upper division

- GEOG 3232 - Weather and Climate
- GEOG 3411 - Globalization and Regional Development
- -OR- GEOG 4335 - Contemporary Environmental Issues
- GEOG 4080 - Introduction to GIS

Total: 22 Hours

ADDITIONAL REQUIREMENTS

Choose six additional courses:

Environmental Science

- GEOG 4020 - Earth Environments and Human Impacts
- GEOG 4265 - Sustainability in Resources Management

Plus one class from the following list:

- ENVS 3082 - Energy and the Environment
- GEOG 3240 - Colorado Climates
- GEOG 4010 - Landscape Geochemistry
- GEOG 4240 - Geomorphology
- GEOG 4270 - Glacial Geomorphology
- GEOG 4280 - Environmental Hydrology
- GEOL 4030 - Environmental Geology

Upper-Division Environmental-Oriented Biology or Chemistry (3 Hours)

One upper-division biology or chemistry course related to the student's environmental science interest must be taken as part of the environmental science option.

Techniques for Environmental Analysis

Quantitative methods (choose one course from the following):

- ANTH 4050 - Quantitative Methods in Anthropology
- GEOG 4770 - Applied Statistics for the Natural Sciences
- -OR- GEOL 4770 - Applied Statistics for the Natural Sciences
- MATH 2830 - Introductory Statistics
- PSYC 2090 - Statistics and Research Methods

- SOCY 3121 - Statistics

Geo-Spatial Analysis (choose one course from the following):

- GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 4085 - GIS Applications for the Urban Environment
- GEOG 4090 - Environmental Modeling with Geographic Information Systems
- GEOG 4230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 4235 - GIS Applications in the Health Sciences

Total: 18 Hours

OPTION TOTAL: 40 HOURS

Option 3—Environmental Studies

Option Advisors: Rafael Moreno, Deborah Thomas and Gregory Simon

Option 3 gives geography majors the opportunity to concentrate on the topic of human-environmental interaction, emphasizing environmental policy, sustainability and social issues.

OPTION 3 REQUIREMENTS

Lower division

- ENVS 1042 - Introduction to Environmental Sciences
- ENVS 1342 - Environment, Society and Sustainability
- GEOG 1302 - Introduction to Human Geography
- GEOG 2080 - Introduction to Mapping and Map Analysis

Upper division

- GEOG 3232 - Weather and Climate
- GEOG 3411 - Globalization and Regional Development
- GEOG 4080 - Introduction to GIS

Total: 22 Hours

ADDITIONAL REQUIREMENTS

Choose six additional courses:

Environmental Studies

Choose three courses from the following:

- GEOG 3300 - Population and Resources in the World Environment
- GEOG 3302 - Water Resources

- GEOG 3401 - Geography of Food and Agriculture
- GEOG 3440 - Ecotourism
- GEOG 3501 - Geography of Health
- GEOG 4335 - Contemporary Environmental Issues
- GEOG 4350 - Environment and Society in the American Past
- GEOG 4420 - The Politics of Nature
- GEOG 4450 - Urban Food and Agriculture: Perspectives and Research
- GEOG 4680 - Urban Sustainability: Perspectives and Practice

Environmental Policy and Planning

Choose two courses from the following:

- GEOG 4220 - Environmental Impact Assessment
- GEOG 4230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 4260 - Natural Resource Planning and Management
- GEOG 4265 - Sustainability in Resources Management
- GEOG 4440 - Science, Policy and the Environment
- GEOG 4710 - Disasters, Climate Change, and Health

Techniques for Environmental Analysis

Choose one course from the following:

- GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 4070 - Remote Sensing II: Advanced Remote Sensing
- GEOG 4081 - Cartography and Computer Mapping
- GEOG 4085 - GIS Applications for the Urban Environment
- GEOG 4090 - Environmental Modeling with Geographic Information Systems
- GEOG 4095 - Deploying GIS Functionality on the Web
- GEOG 4235 - GIS Applications in the Health Sciences
- GEOG 4770 - Applied Statistics for the Natural Sciences

Community/Professional Experience

(optional but highly recommended)

- GEOG 3939 - Internship
- -OR- GEOG 4995 - Travel Study

Total: 18 Hours

OPTION TOTAL: 40 HOURS

Note: Up to 4 semester hours of honors thesis course work or up to 3 semester hours of internships may be counted toward the 18 hours of additional requirements. Such substitutions must be approved by a program option advisor.

Option 4—Urban Studies and Planning

Option Advisors: Brian Page and Amanda Weaver

Option 4 allows geography majors to concentrate on social and spatial aspects of metropolitan growth and change. Students are given the opportunity to take advanced planning courses in their junior and senior years.

OPTION 4 REQUIREMENTS

Lower Division

- GEOG 1202 - Introduction to Physical Geography
- GEOG 1302 - Introduction to Human Geography
- GEOG 1602 - Introduction to Urban Studies
- GEOG 2080 - Introduction to Mapping and Map Analysis

Upper division

- GEOG 3232 - Weather and Climate
- GEOG 3411 - Globalization and Regional Development
- GEOG 4080 - Introduction to GIS

Total: 21 Hours

ADDITIONAL REQUIREMENTS

Choose six additional courses:

Urban Studies, both of the following (4000 or 5000 level):

- GEOG 4640 - Urban Geography: Denver and the U.S.
- GEOG 4680 - Urban Sustainability: Perspectives and Practice

Urban Planning (choose three courses from the following list):

- GEOG 4000 - Planning Methods I
- GEOG 4220 - Environmental Impact Assessment
- GEOG 4230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 4260 - Natural Resource Planning and Management
- GEOG 4265 - Sustainability in Resources Management
- GEOG 4400 - Regional Economic Development
- GEOG 4450 - Urban Food and Agriculture: Perspectives and Research
- GEOG 4630 - Transportation Planning I: Transport Network Analysis
- GEOG 4670 - Transportation Planning II: Urban Transportation Planning
- GEOG 4710 - Disasters, Climate Change, and Health

Techniques for Urban Analysis

Choose one course from the following:

- GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 4070 - Remote Sensing II: Advanced Remote Sensing
- GEOG 4081 - Cartography and Computer Mapping
- GEOG 4085 - GIS Applications for the Urban Environment
- GEOG 4090 - Environmental Modeling with Geographic Information Systems
- GEOG 4095 - Deploying GIS Functionality on the Web
- GEOG 4235 - GIS Applications in the Health Sciences

Community/Professional Experience

(optional but highly recommended)

- GEOG 3939 - Internship
- -OR- GEOG 4995 - Travel Study

Total: 18 Hours

OPTION TOTAL: 39 HOURS

Note: Up to 4 semester hours of honors thesis course work or up to 3 semester hours of internship may be counted toward the 18 hours of additional requirements. Such substitutions must be approved by a program option advisor.

Option 5—Earth Science

Option Advisor: Ryan Sincavage

Option 5 allows geography majors to concentrate on studying natural and physical processes within and on the surface of the planet.

OPTION 5 REQUIREMENTS

Lower division

- ENVS 1342 - Environment, Society and Sustainability
- -OR- GEOG 1302 - Introduction to Human Geography
- GEOL 1072 - Physical Geology: Surface Processes
- GEOL 1082 - Physical Geology: Internal Processes
- GEOG 2080 - Introduction to Mapping and Map Analysis

Upper division

- GEOG 3411 - Globalization and Regional Development
- -OR- GEOG 4335 - Contemporary Environmental Issues
- GEOG 4080 - Introduction to GIS

Total: 20 Hours

ADDITIONAL REQUIREMENTS

Choose six additional courses:

Earth Science

- GEOG 3232 - Weather and Climate
- GEOG 4240 - Geomorphology
- GEOL 3011 - Mineralogy
- GEOL 3421 - Sedimentation and Stratigraphy

Plus one of the following courses:

- GEOG 3240 - Colorado Climates
- GEOG 4010 - Landscape Geochemistry
- GEOG 4020 - Earth Environments and Human Impacts
- GEOG 4095 - Deploying GIS Functionality on the Web
- GEOG 4270 - Glacial Geomorphology
- GEOL 3032 - Geology of Colorado
- GEOL 4030 - Environmental Geology
- GEOL 4111 - Field Methods In Geology
- GEOL 4280 - Environmental Hydrology
- GEOL 4402 - Unsaturated Zone Hydrology

Techniques for Earth Science Analysis

Choose one course from the following:

- GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 4070 - Remote Sensing II: Advanced Remote Sensing
- GEOG 4090 - Environmental Modeling with Geographic Information Systems
- GEOG 4095 - Deploying GIS Functionality on the Web
- GEOG 4770 - Applied Statistics for the Natural Sciences
- -OR- GEOL 4770 - Applied Statistics for the Natural Sciences
- GEOL 4111 - Field Methods In Geology

Total: 20 Hours

OPTION TOTAL: 40 HOURS

NOTE: Any upper division course used to fulfill requirements for the geography major, option 5 cannot also be used for the geology minor.

History BA

The bachelor's degree in history provides students with firm grounding for advanced studies in education, librarianship, law, business and public service, as well as graduate work in the humanities and social sciences broadly. History is an all-inclusive discipline, making it an excellent choice for students with a wide variety of career goals.

For the BA in history, students must complete a minimum of 36 credit hours of history course work, with at least 18 history hours taken at the University of Colorado Denver. Additionally, majors must have at least 18 upper division (3000 and 4000) history credit hours, **of which 15 must be taken at the 4000 level, including HIST 4839, the History Seminar**. Not more than 48 hours of history will be counted toward graduation requirements. A student needs a cumulative grade point average of 2.5 or better in the major to graduate, and no grade below a C (2.0) will count toward major requirements to graduate.

Course Requirements

Required History Courses

- HIST 3031 - Theory and Practice of History: An Introduction to the Major
 - HIST 4839 - History Seminar
- Students must complete HIST 3031 before enrolling in HIST 4839.

Total: 6 Hours

Distribution Requirement

A minimum of 6 semester hours in each of the following areas: United States, Europe and world (Africa, Asia, Latin America). At least 3 semester hours in each area must be upper-division (3000- and 4000-level).

Total: 18 Hours

Electives

The degree requires a minimum of 12 additional semester hours of electives, which can be satisfied by a combination of additional history courses, history internships, or history honors independent study for eligible students.

Total: 12 Hours

Major Total: 36 Hours

BA in History with Secondary Licensure

Students seeking secondary social studies teacher licensure may pursue a BA in history. This option enables them to complete their history major as well as fulfill requirements for licensure at the undergraduate level.

If you are interested in this option, you should meet with a CLAS advisor as soon as possible. You can complete your degree, including licensure, within a 4-year graduation plan, but only if you declare it early in your college career and meet regularly with your advisors.

To earn the professional teacher licensure, you will complete a major in history and then complete licensure courses in the School of Education & Human Development (SEHD). See Undergraduate Teacher Licensure on the SEHD Urban Community Teacher Education program page for more information. The licensure process requires that you be admitted into the SEHD to complete licensure classes. You will be working with your CLAS advisor through the application process.

Get to know your advisor! He/she is your guide through what can be a complex process dictated by the State of Colorado. Call 303-556-8316 for more information.

Human Resources Management Emphasis—BS in Business Administration

Human resources management offers opportunities for students to develop professional competence in the areas of personnel administration and development. Students acquire an understanding of, and skills in, developing and implementing human resources systems, including recruitment, selection, evaluation, training, motivation and compensation.

Required Course

- MGMT 3010 - Managing People for a Competitive Advantage

Electives

Choose two:

- MGMT 4420 - Human Resources Management: Staffing
- MGMT 4430 - Human Resources Management: Training
- MGMT 4440 - Human Resource Management: Performance Management
- MGMT 4450 - Human Resources Management: Compensation

Management Electives

Choose three:

- Any MGMT course (up to 9 hours)
- ENTP 3000 - Principles of Entrepreneurship

Total: 18 Hours

Individually Structured Major BA

Requirements for the Major

The ISM program plan requires course work over two or three disciplines. A discipline is defined as a single department or program such as biology, ethnic studies or math. The ISM program plan must comply with the following policies:

- Between 48 and 54 semester hours are allowed for the program plan.
- A minimum of 16 semester hours must be upper-division credit.
- A minimum of 30 semester hours must be completed in liberal arts and sciences course work.
- Each discipline requires a minimum of 15 semester hours, of which at least 3 must be upper-division hours.
- A minimum of 6 semester hours in each discipline must be taken from CU Denver faculty.
- A maximum of one discipline may be outside CLAS.
- A third optional discipline may be a mixture of course work, excluding courses from the first and second disciplines.
- An ISM title must be consistent with the academic theme and disciplines in the program plan.

The ISM program plan contract is approved by faculty for each discipline and submitted along with a cover letter identifying the ISM focus or academic theme to the CLAS Advising Office, North Classroom, 4002, for college approval by the assistant/associate dean. The ISM program plan must be approved before one-third of the ISM course work is completed. Typically, a maximum of 16-18 hours of previously completed courses is allowed.

Graduation requirements for ISM students include a minimum 2.0 GPA for all ISM course work, a minimum 2.0 GPA in each discipline in the program plan and a minimum of 24 hours of course work taken from CU Denver faculty.

Information Systems Emphasis—BS in Business Administration

The information systems program at the University of Colorado Denver is a nationally accredited program for students who want to design and implement effective solutions to meet organizational and management needs for information, control and decision making.

An information systems (ISMG) emphasis draws on a diverse set of skills and strengths requiring creative and innovative thinking at the intersections of disciplinary knowledge and practice. Information systems students learn how information technology, effective teamwork and leadership and sound project management combine to enable innovation and change, to improve organizational agility and to add competitive value. Courses require extensive hands-on projects, teamwork and use of high-end technology. A combination of technical skills gained in class work with broad based business process knowledge enables our graduates to be ideally situated to take leading roles in shaping the technology-based future of employers in the Rocky Mountain region and the nation.

Undergraduate options

The Business School at the University of Colorado Denver offers a bachelor of science in business administration where you may choose information systems as your primary core specialty:

- Information Systems, Bachelor of Science in Business Administration degree

Or you may choose to add an information systems speciality to another business discipline.

- Accounting and Information Systems emphasis
- Financial Management Systems emphasis
- Management and Information Systems emphasis
- Marketing and Information Systems emphasis

Career Opportunities

Careers in information systems continue to be one of the highest growth markets in the business world. A student completing the information systems program curriculum will be prepared for challenging careers as business analyst, database analyst, Web content manager, project manager, IT consultant and information auditing and compliance specialist. Employment possibilities include financial operations, health care, management consulting, service operations, transportation and logistics and government.

Information systems is becoming the foundation of all business activities, and a solid understanding of the role of information systems in business and in the national and global economy is now critical for every business student. The information systems emphasis focuses on effective use of information technology in business. You are equipped with logical and analytical thinking in all areas of business and a strong basis for continued career growth in a variety of growing professions. You will develop the technical skills, business know-how and administrative insights required for acquisition, deployment and management of IT resources

and services development, operation and evolution of IS infrastructure for use in accounting, finance, marketing, management and other business processes.

Curriculum

The courses emphasize both team and individual work, allowing students to gain critical thinking skills, knowledge and experience to analyze, design, program, implement and use information.

Requirements for the Information Systems emphasis

Lower Division

- ISMG 2050 - Introduction to Business Problem Solving (fall or spring)
- ISMG 2800 - Designing for the Web (spring)

Upper Division: Junior Year

- ISMG 3000 - Technology In Business
- ISMG 3500 - Enterprise Data and Content Management (fall)
- ISMG 3600 - System Strategy, Architecture and Design (spring)

Upper Division: Senior Year

- ISMG 4200 - Building Business Applications (fall)
- ISMG 4700 - Business Data Communications and Networking (spring)
- ISMG 4900 - Project Management and Practice (fall or spring)

Important note

It is particularly important to take the required courses in the proper sequence to fulfill the prerequisites and ensure you can complete your degree within four years. Please refer to the sample degree plan for the recommended course sequence.

Information Systems Electives

- ACCT 4054 - Accounting Systems and Data Processing
- CSCI 2312 - Intermediate Programming
- CSCI 2421 - Data Structures and Program Design
- ISMG 4300 - Information Security and Compliance
- ISMG 4750 - Business Intelligence and Financial Modeling
- ISMG 4760 - Customer Relationship Management

Specialization in a minor area

You may also choose a secondary business minor area to support your career objectives.

Accounting

Choose two from the following:

- ACCT 4054 - Accounting Systems and Data Processing
- ACCT 3220 - Intermediate Financial Accounting I
- ACCT 3230 - Intermediate Financial Accounting II
- ACCT 4780 - Accounting and Information Systems Processes and Controls

Finance

Choose two from the following:

- FNCE 3500 - Management of Business Capital
- FNCE 3700 - Investment and Portfolio Management
- FNCE 3600 - Financial Markets and Institutions
- FNCE 4750 - Business Intelligence and Financial Modeling

Human Resource Management

Choose two from the following:

- MGMT 3010 - Managing People for a Competitive Advantage
- MGMT 4420 - Human Resources Management: Staffing
- MGMT 4430 - Human Resources Management: Training
- MGMT 4450 - Human Resources Management: Compensation
- MGMT 4770 - Human Resource Information Systems

Management

Choose two from the following:

- MGMT 4350 - Leading Organizational Change
- MGMT 4370 - Organization Design
- MGMT 4400 - Environments of International Business

Marketing

Choose two from the following:

- MKTG 3100 - Marketing Research
- MKTG 3200 - Buyer Behavior
- MKTG 4050 - Applied Marketing Management

- MKTG 4760 - Customer Relationship Management

NOTE:

All information systems courses are not offered every semester.

International Business Emphasis—BS in Business Administration

Increasingly, businesses are reorienting their thinking, planning and operations to capitalize on opportunities that exist in the world marketplace. Every phase of business is affected by this reorientation. For individuals with the appropriate skills, training and interest, international business provides excellent career opportunities.

The international business curriculum is designed to enhance and build on thorough training in basic business skills and to provide students with additional skills and knowledge appropriate to international business.

Required Foundation Courses

- MGMT 4370 - Organization Design
- MKTG 4050 - Applied Marketing Management

Required Emphasis Courses

- FNCE 4370 - International Financial Management
- MGMT 4400 - Environments of International Business
- MGMT 4410 - Operations of International Business
- MKTG 4200 - International Marketing

Total: 18 Hours

A second area of emphasis in business is highly recommended. In addition, serious consideration should be given to advanced study of a foreign language and to either a minor or a certificate in international affairs, offered by the College of Liberal Arts and Sciences.

Elective Business Emphasis Courses (9 semester hours)

- Three business courses (3000 or 4000 level), 3 semester hours each

Students are strongly recommended to take courses within the same business discipline, including internationally-oriented courses within the discipline such as MKTG 4220 - Asian Business Development and Marketing and ACCT 4370 - International Accounting.

International Studies BA

Program Requirements

The major consists of 48 to 51 semester hours, structured as follows:

- complete 9 semester hours from a list of introductory courses listed below
- choose three thematic concentrations from the following five:
language and culture, international relations and comparative politics, economics and development, international commerce, and regional societies and history. Majors complete 12 hours in each theme (except international commerce, which requires 15). Below is a list of preapproved courses in each concentration. Students wishing to apply courses not on the list may do so with the approval of the program director.
- a capstone seminar (3 semester hours) for students in their last year
- the major is interdisciplinary, and students must take classes in at least three different disciplines (anthropology, economics, geography, history, international commerce/business, modern languages, political science or religious studies). No more than 18 hours in any one discipline will be accepted toward the major.
- students are expected to develop a regional specialization. They must choose courses from the introductory and thematic concentration lists that contribute to an understanding of a world region.
- all international studies majors must demonstrate a proficiency in a language other than English. This may be fulfilled with the fourth semester of a foreign language course sequence. Students must receive a grade of C or better in all language courses; they also have the option of testing out of this requirement.
- majors must complete at least half (24 hours) of the semester hours at CU Denver. A cumulative GPA of 2.5 or better is required, with a minimum grade of C- earned in all major courses to graduate.

Required Courses

Introductory Courses

Choose one course from each of the following three groups:

Choose one:

- ECON 2012 - Principles of Economics: Macroeconomics
- GEOG 1102 - World Regional Geography

Choose one:

- INTB 3000 - Global Perspectives
- PSCI 3022 - Introduction to Comparative Politics
- PSCI 3042 - Introduction to International Relations

Choose one:

- ANTH 2102 - Culture and the Human Experience
- HIST 3451 - Introduction to African History
- HIST 3460 - Introduction to Latin American History
- HIST 3470 - Introduction to Asian History
- HIST 3480 - Introduction to European History
- HIST 3483 - Introduction to Modern South Asia
- RLST 2660 - World Religions

Total: 9 Hours

Thematic Concentrations

Students must take a minimum of four upper-division courses in each of three of the following five concentrations, for a total of 36 semester hours (12 hours in each concentration). Please note that the concentration in international commerce requires five courses rather than four, for a total of 39 semester hours. The list below does not include all the international courses applicable to the major, only the ones frequently taught. It is expected to change as departments develop new courses and hire new faculty in different areas.

Note: Concentrations are interdisciplinary and are not the same as academic departments. Students must take courses in at least three different academic departments and no more than 18 semester hours in any one department.

Language, Culture and Literature

This concentration aims at deepening the student's understanding of the cultural underpinnings and worldviews of different societies.

Modern languages: any upper-division courses in the Department of Modern Languages except Methods of Teaching French/German/Spanish. We have not listed the courses individually because there are so many upper-division courses on world literature and culture available in modern languages.

- ANTH 3121 - Language, Culture, and Communication
- PHIL 4650 - Differing Concepts of God
- -OR- RLST 4400 - Differing Concepts of God
- RLST 4010 - Comparative Religious Systems

International Relations and Comparative Politics

Courses in this concentration stress comparative approaches, diplomacy and conflict resolution. Students will have an understanding of how different societies make decisions and manage international relations. How do other cultures conceive of and practice power?

- ANTH 4180 - The Nature of Power
 - HIST 3121 - The World at War, 1914-1945
 - HIST 4032 - Globalization in World History Since 1945
 - HIST 4220 - U.S. Foreign Policy Since 1912
 - HIST 4412 - Mexico and the United States: People and Politics on the Border
 - HIST 4471 - The Second World War
 - HIST 4475 - The Vietnam War
 - * PSCI 3022 - Introduction to Comparative Politics
 - * PSCI 3042 - Introduction to International Relations
 - PSCI 4057 - Religion and Politics
 - -OR- RLST 4500 - Religion and Politics
 - PSCI 4105 - Comparative Politics: Europe
 - PSCI 4146 - Indigenous Politics
 - PSCI 4156 - The Arab-Israeli Peace Process
 - PSCI 4185 - Corruption in the U.S. and Abroad
 - PSCI 4216 - International Politics: Human Rights
 - PSCI 4225 - Democracy and Democratization
 - PSCI 4226 - The United Nations in World Affairs
 - PSCI 4236 - American Foreign Policy
 - PSCI 4266 - International Law
 - PSCI 4286 - International Relations: War or Peace?
 - PSCI 4726 - Russian and Chinese Foreign Policy
 - PSCI 4736 - The Middle East in World Affairs
 - PSCI 4807 - Political Violence
 - PSCI 4995 - Travel Study
- * If not taken to fulfill the introductory major requirements.

Economics, Development and Environment

Students taking this concentration will develop an understanding of economic processes in an international context. The courses offer comparative approaches and cultural perspectives on development and environment.

Note: Students in this concentration must take ECON 2012 - Principles of Economics: Macroeconomics as one of their three introductory courses.

Required economics course

- ECON 2022 - Principles of Economics: Microeconomics

Choose three upper division courses from the following:

- ANTH 4010 - Medical Anthropology: Global Health
- ANTH 4070 - Culture of Development and Globalization
- ANTH 4170 - Culture and the Environment
- ANTH 4390 - Laboratory Methods in Archaeology

- ECON 4081 - Intermediate Macroeconomic Theory
- ECON 4230 - Law and Economics
- ECON 4410 - International Trade
- ECON 4420 - International Finance
- ECON 4540 - Environmental Economics
- ECON 4770 - Economic Development--Theory and Problems
- GEOG 3300 - Population and Resources in the World Environment
- GEOG 3411 - Globalization and Regional Development
- GEOG 3430 - Geography of Tourism
- GEOG 4265 - Sustainability in Resources Management
- INTB 3000 - Global Perspectives
- PSCI 4085 - Comparative Public Policy
- PSCI 4126 - Introduction to International Political Economy
- PSCI 4235 - Politics and Markets in Latin America
- PSCI 4248 - Gender, Globalization and Development
- PSCI 4326 - Advanced International Political Economy: Globalization
- PSCI 4365 - Global Ecological Crises
- PSCI 4555 - International Women's Resistance

International Commerce

The objective of this concentration is to give students an introduction to international business practices.

ECON 2012 and ECON 2022 are prerequisites for most of these courses. Note that the first three courses are prerequisites for MGMT 4400 and MKTG 4200. Students opting for this concentration must take both MGMT 4400 and MKTG 4200. Students must meet Business School entrance requirements for the international commerce concentration, with a 3.0 GPA overall or in the last 24 hours.

Note: This concentration requires 15 hours, not 12.

- ACCT 2200 - Financial Accounting and Financial Statement Analysis
(MATH 1070 or MATH 1110 prerequisite and sophomore standing).
- * MGMT 3000 - Managing Individuals and Teams
- * MKTG 3000 - Principles of Marketing
- * MGMT 4400 - Environments of International Business
- * MKTG 4200 - International Marketing

* Students must have junior standing to take the 3000-level courses and must be formally admitted to the international studies program to take the 4000-level courses.

Regional Societies and History

Students in this concentration are expected to develop a historical understanding of how nations and political systems develop. To understand why international actors behave in a given way,

one needs to understand the historical background of those actors; this concentration will familiarize students with that background.

- ANTH 4995 - Travel Study
- GEOG 3120 - Geography of Europe
- GEOG 3130 - Central America and the Caribbean
- GEOG 3140 - Geography of South America
- GEOG 3150 - Middle East
- HIST 3350 - Colonial Latin America
- HIST 3500 - African History in Novels and Films
- HIST 3995 - Travel Study
- HIST 4027 - Enlightenment and Revolution
- HIST 4028 - Nations and Classes: 19th Century Europe
- HIST 4029 - Age of Anxiety in Europe
- HIST 4046 - Victorians and Victorianism
- HIST 4051 - Britain and The Empire
- HIST 4062 - Modern France, 1789 to the Present
- HIST 4071 - Modern Germany
- HIST 4074 - Post-War Germany
- HIST 4082 - Reform and Revolution in Russia: The 1860s to 1917
- HIST 4083 - Russia Since 1917
- HIST 4086 - Eastern Europe
- HIST 4303 - Sex and Gender in Modern Britain
- HIST 4411 - Modern Mexico
- HIST 4414 - Nationalism and State Building in Latin America, 1750-1850
- HIST 4415 - Social Revolutions in Latin America
- HIST 4421 - Modern China
- HIST 4451 - Southern Africa
- HIST 4455 - African Struggle for Independence
- HIST 4460 - The Islamic World's Golden Age
- HIST 4461 - The Modern Middle East
- HIST 4621 - Explorers and Exploration
- PSCI 4155 - Political Systems of the Middle East and North Africa
- PSCI 4165 - Islamic Politics and Culture
- -OR- RLST 3100 - Islamic Politics and Culture
- PSCI 4505 - Political System of Russia and Its Neighbors
- PSCI 4554 - Chicano and Latino Politics
- PSCI 4615 - Politics and Government of China
- RLST 3400 - Asian Philosophies and Religions
- -OR- PHIL 3666 - Asian Philosophies and Religions
- RLST 3500 - Religions of India
- RLST 3660 - Chinese Philosophy and Culture
- -OR- PHIL 3981 - Chinese Philosophy and Culture

International Studies Capstone Course

All majors must take a 3-semester-hour seminar focusing on a global issue. Currently the designated capstone courses are:

- HIST 4417 - Commodities and Globalization: Dessert in World History
- PSCI 4126 - Introduction to International Political Economy

[Return to International Studies](#)

Management Emphasis—BS in Business Administration

The management curriculum provides the foundation for careers in supervision and general management in a wide variety of organizations. It develops skills in management practice through an understanding of general management principles, individual and group behavior, organizational change and design and human resources management.

Required Foundation Courses

- MKTG 4050 - Applied Marketing Management

Required Emphasis Courses

- MGMT 3010 - Managing People for a Competitive Advantage
- MGMT 4330 - Mastering Management
- MGMT 4350 - Leading Organizational Change
- MGMT 4370 - Organization Design

Choose two:

Students may choose 9 hours Management elective courses.

Total: 21 Hours

Management/Information Systems (MGIS)

Within the management curriculum students can choose to add additional courses in information systems to complement their individual interests as well as prior education and work experiences.

Required Information System courses

- ISMG 3500 - Enterprise Data and Content Management
- ISMG 3600 - System Strategy, Architecture and Design
- ISMG 4900 - Project Management and Practice

Total: 9 Hours

Marketing Emphasis—BS in Business Administration

Marketing is concerned with directing the activities of the organization toward the satisfaction of customer wants and needs. This involves understanding customers, identifying those wants and needs that the organization can best serve, guiding the development of specific products or services, planning and implementing ways to take products or services to the market, securing the customer's order and finally, monitoring customer response in order to guide future activities.

In most organizations, marketing is a major functional area that provides a wide variety of career opportunities in such fields as personal selling and sales management, advertising and sales promotion, public relations, marketing research, physical distribution, product management, market management, marketing information systems and retail management. Increasingly, career opportunities exist in service businesses and nonprofit organizations.

Required Emphasis Courses

- MKTG 3100 - Marketing Research
- MKTG 4050 - Applied Marketing Management

Elective Marketing courses: Any four 3000 or 4000-level and above MKTG prefixed courses (excluding any used to satisfy the international business or diversity requirements)

Elective Business course: One 3000 or 4000-level or above business course

Students are encouraged to meet with their advisers to discuss which electives can best help them meet their career goals.

Electives

Choose three: Students may select 3 management electives

- MKTG 3200 - Buyer Behavior
- MKTG 3300 - Social Media in Business
- MKTG 4000 - Advertising
- MKTG 4200 - International Marketing
- MKTG 4220 - Asian Business Development and Marketing
- MKTG 4250 - Sports Marketing
- MKTG 4580 - International Transportation
- MKTG 4700 - Personal Selling and Sales Management
- MKTG 4760 - Customer Relationship Management
- MKTG 4950 - Special Topics

Total: 21 Hours

In addition to the three required courses beyond the core, students may select marketing electives, business electives and nonbusiness electives that support their particular career orientations. The marketing faculty advisor can assist the student in choosing an appropriate set of electives to fit career objectives.

Marketing courses that were used to satisfy the international business requirement cannot be applied to the marketing area of emphasis.

Marketing/Information Systems (MKIS)

Within the marketing curriculum students can choose to add courses in information systems to complement their individual interests as well as prior education and work experiences.

Required Information System Courses

- ISMG 3500 - Enterprise Data and Content Management
- ISMG 3600 - System Strategy, Architecture and Design
- ISMG 4900 - Project Management and Practice

Required Emphasis Courses

- MKTG 3100 - Marketing Research
- MKTG 4050 - Applied Marketing Management
- ISMG 4760 - Customer Relationship Management
or
- MKTG 4760 - Customer Relationship Management

Choose two:

- MKTG 3200 - Buyer Behavior
- MKTG 4000 - Advertising
- MKTG 4220 - Asian Business Development and Marketing
- MKTG 4700 - Personal Selling and Sales Management
- MKTG 4720 - Internet Marketing
- MKTG 4950 - Special Topics

Total: 24 Hours

Marketing courses that were used to satisfy the international business requirement cannot be applied to the marketing area of emphasis.

Mathematics BS

Degree Requirements

Required Core Courses for All Mathematics Majors

- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 2421 - Calculus III
- MATH 3000 - Introduction to Abstract Mathematics
- MATH 3191 - Applied Linear Algebra
- MATH 4310 - Introduction to Real Analysis I

TOTAL REQUIRED CORE: 21 HOURS

IN ADDITION, ALL STUDENTS MUST SATISFY THE FOLLOWING REQUIREMENTS:

- Programming experience: MATH 3250 (Problem-Solving Tools) or MATH 4650 (Numerical Analysis I)
- Capstone Experience: MATH 4779 (Math Clinic) or MATH 4015 (Capstone Course for Secondary Teachers)
- Statistics Requirement: MATH 3800 (Probability and Statistics for Engineers) or MATH 4820 (Statistics)
- Depth in Proofcraft Requirement: at least one additional class requiring significant proof-writing. Choose from MATH 4110, 4140, 4201, 4220, 4320 and 4408
- Applied/Modeling Requirement: at least one class containing significant applied/modeling content. Choose from MATH 3301, 3302, 4387, 4409, 4733, 4791, 4792, 4793 and 4794
- A total of at least 36 upper-division credits (typically 12 courses)
- All mathematics options require at least 48 credits total for the bachelor's degree

Required Courses for Each Option

GENERAL MATHEMATICS OPTION

All core courses (21 semester hours), plus the following:

- MATH 4779 - Math Clinic

One course chosen from:

- MATH 3250 - Problem Solving Tools
- MATH 4650 - Numerical Analysis I

One course chosen from:

- MATH 3800 - Probability and Statistics for Engineers

- MATH 4820 - Statistics

One course chosen from:

- MATH 4110 - Theory of Numbers
- MATH 4140 - Introduction to Modern Algebra
- MATH 4201 - Topology
- MATH 4220 - Higher Geometry II
- MATH 4320 - Introduction to Real Analysis II
- MATH 4408 - Applied Graph Theory

One course chosen from:

- MATH 3301 - Introduction to Operations Research I - Deterministic Systems
- MATH 3302 - Operations Research II
- MATH 4387 - Regression Analysis, Modeling and Time Series
- MATH 4409 - Applied Combinatorics
- MATH 4733 - Partial Differential Equations
- MATH 4791 - Continuous Modeling
- MATH 4792 - Probabilistic Modeling
- MATH 4793 - Discrete Math Modeling
- MATH 4794 - Optimization Modeling

Electives:

Four approved math electives (at least 12 semester hours) above 3000, excluding 3040, 3511, 4012, 4013, 4014 and 4015. (Note: Students cannot use MATH 3195 to satisfy this requirement if both MATH 3191 and MATH 3200 are being applied toward this degree.)

General B.S. in Mathematics Total: 48-49 Hours

APPLIED MATHEMATICS OPTION

All core courses (21 semester hours), plus the following:

- MATH 3200 - Elementary Differential Equations
- MATH 4650 - Numerical Analysis I
- MATH 4779 - Math Clinic

One course chosen from:

- MATH 3800 - Probability and Statistics for Engineers
- MATH 4820 - Statistics

One course chosen from:

- MATH 4110 - Theory of Numbers
- MATH 4140 - Introduction to Modern Algebra
- MATH 4201 - Topology
- MATH 4220 - Higher Geometry II
- MATH 4320 - Introduction to Real Analysis II
- MATH 4408 - Applied Graph Theory

Two courses chosen from:

- MATH 3301 - Introduction to Operations Research I - Deterministic Systems
- MATH 3302 - Operations Research II
- MATH 4387 - Regression Analysis, Modeling and Time Series
- MATH 4733 - Partial Differential Equations
- MATH 4791 - Continuous Modeling
- MATH 4792 - Probabilistic Modeling
- MATH 4793 - Discrete Math Modeling
- MATH 4794 - Optimization Modeling

Electives:

Two approved math electives (at least 6 semester hours) above 3000, excluding 3040, 3511, 4012, 4013, 4014 and 4015. (Note: Students cannot use MATH 3195 to satisfy this requirement if both MATH 3191 and MATH 3200 are being applied toward this degree.)

Applied Mathematics Option Total: 48-49 Hours

PROBABILITY AND STATISTICS OPTION

All core courses (21 semester hours), plus the following:

- MATH 3200 - Elementary Differential Equations
- MATH 4650 - Numerical Analysis I
- MATH 4779 - Math Clinic
- MATH 4810 - Probability
- MATH 4820 - Statistics

One course chosen from:

- MATH 4387 - Regression Analysis, Modeling and Time Series
- MATH 4792 - Probabilistic Modeling

One course chosen from:

- MATH 4110 - Theory of Numbers
- MATH 4140 - Introduction to Modern Algebra
- MATH 4201 - Topology
- MATH 4220 - Higher Geometry II
- MATH 4320 - Introduction to Real Analysis II
- MATH 4408 - Applied Graph Theory

Electives:

Two approved math electives (at least 6 semester hours) above 3000, excluding 3040, 3511, 4012, 4013, 4014 and 4015. (Note: Students cannot use MATH 3195 to satisfy this requirement if both MATH 3191 and MATH 3200 are being applied toward this degree.)

Probability and Statistics Option Total: 48-49 Hours

ACTUARIAL SCIENCE OPTION

All core courses (21 semester hours), plus the following:

- MATH 3200 - Elementary Differential Equations
- MATH 4650 - Numerical Analysis I
- MATH 4779 - Math Clinic
- MATH 4810 - Probability
- MATH 4820 - Statistics

One course chosen from:

- MATH 3301 - Introduction to Operations Research I - Deterministic Systems
- MATH 3302 - Operations Research II
- MATH 4387 - Regression Analysis, Modeling and Time Series
- MATH 4409 - Applied Combinatorics
- MATH 4733 - Partial Differential Equations
- MATH 4791 - Continuous Modeling
- MATH 4793 - Discrete Math Modeling
- MATH 4794 - Optimization Modeling

One course chosen from:

- MATH 4110 - Theory of Numbers
- MATH 4140 - Introduction to Modern Algebra
- MATH 4201 - Topology
- MATH 4220 - Higher Geometry II
- MATH 4320 - Introduction to Real Analysis II
- MATH 4408 - Applied Graph Theory

One course chosen from:

- MATH 4792 - Probabilistic Modeling
- MATH 5350 - Mathematical Theory of Interest
(MATH 5350 strongly recommended)

Elective:

One approved math elective (at least 3 semester hours) above 3000, excluding 3040, 3511, 4012, 4013, 4014 and 4015. (Note: Students cannot use MATH 3195 to satisfy this requirement if both MATH 3191 and MATH 3200 are being applied toward this degree.)

Actuarial Science Option Total: 48-49 Hours

Suggested minor for actuarial science major option:

Actuaries need a background in business, particularly accounting, economics and finance. You are strongly advised to do a minor in one of these areas. Recommended classes are:

- ACCT 2200 - Financial Accounting and Financial Statement Analysis
- ECON 2012 - Principles of Economics: Macroeconomics
- ECON 2022 - Principles of Economics: Microeconomics
- FNCE 3000 - Principles of Finance

MATHEMATICS EDUCATION OPTION

All core courses (21 semester hours), plus the following:

- MATH 3210 - Higher Geometry I
- MATH 4010 - History of Mathematics
- MATH 4012 - An Advanced Perspective on Number and Operation
- MATH 4013 - An Inquiry-based Approach to Geometry
- MATH 4014 - Statistical Knowledge for Teaching
- MATH 4015 - Capstone Course for Secondary Teachers
- MATH 4140 - Introduction to Modern Algebra
- MATH 4409 - Applied Combinatorics

One course chosen from:

- MATH 3250 - Problem Solving Tools
- MATH 4650 - Numerical Analysis I

One course chosen from:

- MATH 3800 - Probability and Statistics for Engineers
- MATH 4820 - Statistics

One course chosen from:

- MATH 3200 - Elementary Differential Equations
- MATH 3301 - Introduction to Operations Research I - Deterministic Systems
- MATH 3302 - Operations Research II
- MATH 4779 - Math Clinic
- MATH 4791 - Continuous Modeling
- MATH 4792 - Probabilistic Modeling
- MATH 4794 - Optimization Modeling

Mathematics Education Option Total: 49 Hours

NOTE:

Certification by the School of Education & Human Development (SEHD) is required for public school teaching. See the description of Undergraduate Teacher Licensure on the School of Education & Human Development (SEHD) Urban Community Teacher Education program page for more information.

Portfolio, Interview, Survey

In the semester of graduation, students must:

- submit a portfolio consisting of two papers, typically written for previous courses, that demonstrate mathematical and writing proficiency
- participate in an exit interview, which may be scheduled by the department administrative assistant

- complete a senior survey, available from the department administrative assistant

Math Majors Considering Graduate Study

Mathematics majors who are considering graduate study in mathematics should plan to take the following courses as part of their major:

- MATH 4310 - Introduction to Real Analysis I
- MATH 4320 - Introduction to Real Analysis II

Mechanical Engineering BS

Typical Curriculum for BS (Mechanical Engineering—see note 1)

Freshman Year

First Semester

- CHEM 1130 - Engineering General Chemistry
- ENGL 1020 - Core Composition I (*see note 2*)
- MECH 1025 - CAD and Graphics for Mechanical Engineering
- MATH 1401 - Calculus I

Total: 15 Hours

Second Semester

- MATH 2411 - Calculus II
- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I
Core Curriculum Electives (*see note 3*) (6 semester hours)

Total: 15 Hours

Sophomore Year

First Semester

- MATH 2421 - Calculus III
- MECH 2023 - Statics (*see note 4*)
- PHYS 2331 - General Physics II: Calculus-Based
- PHYS 2341 - General Physics Lab II
Core Curriculum Electives (*see note 3*) (6 semester hours)

Total: 18 Hours

Second Semester

- ENGL 2030 - Core Composition II
- MECH 3012 - Thermodynamics
- MATH 3195 - Linear Algebra and Differential Equations
- MECH 2033 - Dynamics (*see note 4*)
- MECH 3030 - Electric Circuits and Systems
- MECH 3032 - Electric Circuits and Systems Lab

Total: 17 Hours

Junior Year

First Semester

- MECH 3010 - Elementary Numerical Methods and Programming
- MECH 3021 - Introduction to Fluid Mechanics
- MECH 3022 - Thermodynamics II
- MECH 3027 - Measurements
- MECH 3028 - Laboratory of Mechanical Measurements
- MECH 3043 - Strength of Materials

Total: 16 Hours

Second Semester

- MECH 3023 - System Dynamics I: Vibrations
- MECH 3024 - Introduction to Materials Science
- MECH 3031 - Fluids/Thermal Laboratory
- MECH 3034 - Properties of Engineering Materials
- MECH 3035 - Design of Mechanical Elements
- MECH 3042 - Heat Transfer
- MECH 3065 - Intermediate Dynamics

Total: 17 Hours

Senior Year

First Semester

- MECH 3145 - Manufacturing Processes Design
 - MECH 4023 - System Dynamics II: Controls
 - MECH 4035 - Senior Design I
- MECH Technical Electives (*see note 5*) (6 semester hours)

Total: 15 Hours

Second Semester

- MECH 4045 - Senior Design II
- MECH Technical Electives (6 semester hours)
Core Curriculum Electives (*see note 3*) (6 semester hours)

Total: 15 Hours

Notes

1. Students enrolled prior to fall 2006 may choose either the new core curriculum or the old core curriculum.
2. The communication requirements include ENGL 1020 and ENGL 2030.
3. Common core requirements of the College of Engineering and Applied Science. Refer to the “Undergraduate Core Curriculum in Engineering ” in this catalog or to the “Common Core Requirements” guide available from your advisor for further information.
4. CVEN 2121 and CVEN 3111 may be substituted for MECH 2023 and MECH 2033 respectively.
5. Not all courses may be offered every semester.

Program Total: 128 Hours

Students should check with departmental advisors to determine their degree requirements. The particular curriculum to be satisfied by each student is the one published in the catalog *current* at the time of their matriculation. For additional information, see the departmental advisor.

Students should refer to the section in this chapter on “Academic Policies” of the College of Engineering and Applied Science. In addition to planning for sequences of courses based on prerequisites, students should plan to complete sophomore-level courses before taking junior level courses and should have completed their junior-level mechanical engineering courses before starting their senior-level mechanical engineering electives. All students should see their advisors at least once each semester.

Music BS – Performance, Singer/Songwriter, Music Business, Recording Arts Emphases

CAM General Course Requirements

General Music Information

Performance Emphasis

Singer/Songwriter Emphasis

Music Business Emphasis, Audition Track

Music Business Emphasis, Non-Audition Track

Recording Arts Emphasis, Audition Track

Recording Arts Emphasis, Non-Audition Track

Undergraduate Degree Requirements

The bachelor of science (BS) in music has a competitive application process. Please refer to the Music and Entertainment Industry Studies Department (MEIS) website for additional guidelines and information. To be eligible for a BS in music, students must complete music foundation courses, MEIS core courses and requirements from one of the four emphasis areas: performance, singer/songwriter, music business, or recording arts. Students must complete each major course with a grade of C (2.0) or better.

Performance Emphasis Requirements

Students who wish to pursue the performance emphasis are required to pass an entrance audition on their primary instrument or voice as part of the application process and pass varying levels of performance proficiency as part of the curricula. Each student must also successfully pass a Sophomore Proficiency on his or her primary instrument or voice in order to be accepted into the performance emphasis. Each student is also required to successfully complete a Junior Recital in addition to the 2-credit PMUS 4200 Senior Recital Project. Contact the CAM Office for more information at 303-556-2279.

Music Foundation Courses

- PMUS 1023 - Piano Class I
- PMUS 1024 - Piano Class II
- PMUS 1025 - Piano Class III
- PMUS 1026 - Piano Class IV
- PMUS 1100 - Music Theory I
- PMUS 1110 - Ear Training and Sight Singing I

- PMUS 1200 - Music Theory II
- PMUS 1210 - Ear Training and Sight Singing II
- PMUS 1500 - General Recital
PMUS 1500 - General Recital
PMUS 1500 - General Recital
PMUS 1500 - General Recital
2 semesters of 1000-level lessons (2 semester hours)
2 semesters of 2000-level lessons (2 semester hours)
4 semesters of ensembles (4 semester hours)
- PMUS 2100 - Music Theory III
- PMUS 2110 - Ear Training and Sight Singing III
- PMUS 2200 - Jazz Theory
- PMUS 3830 - History and Literature of Music I
- PMUS 3831 - History and Literature of Music II
PMUS ____ - 3000/4000 level Music History Elective (3 semester hours)

Total: 40 Hours

MEIS Core Courses

- MUSC 2700 - Introduction to Music Business
- MUSC 3210 - Music and Entertainment Marketing
or
- MUSC 3220 - Artist Management
- MUSC 2540 - Audio Production I
- MUSC 2560 - Audio Production II

Total: 12 Hours

Performance Emphasis Courses

- PMUS 1500 - General Recital
PMUS 1500 - General Recital I
PMUS 1500 - General Recital I
PMUS 1500 - General Recital
2 semesters of 3000-level lessons (4 semester hours)
4 semesters of ensembles (4 semester hours)
- PMUS 3210 - Introduction to Teaching Private Music Lessons
- PMUS 3300 - Advanced Jazz Improvisation
or
- PMUS 3330 - Advanced Vocal Improvisation (for Voice students)
2 semesters of 4000-level lessons (4 semester hours)
- PMUS 4060 - Music Theory Analysis
- PMUS 4200 - Senior Recital Project
PMUS ____ - Music Performance Electives ** (5 semester hours)
**Specific elective courses may be required depending upon student's primary instrument. Consult CAM Advising at CAMadvising@ucdenver.edu for more details.

Total: 31 Hours

Singer/Songwriter Emphasis Requirements

Students who wish to pursue the singer/songwriter emphasis are required to pass an audition on their accompanying instrument AND voice as part of the application process, and pass varying levels of performance proficiency as part of the curricula. Each student must also successfully pass a Sophomore Proficiency in order to be accepted into the singer/songwriter emphasis. Each student is also required to successfully complete a Junior Recital in addition to the 2-credit PMUS 4200 Senior Recital Project. Contact the CAM Office for more information at 303-556-2279.

Music Foundation Courses

- PMUS 1023 - Piano Class I
- PMUS 1024 - Piano Class II
- PMUS 1025 - Piano Class III
- PMUS 1026 - Piano Class IV (for Piano/Voice students)
- or
- PMUS 2750 - Functional Guitar Skills: Acoustic Guitar Styles (for Guitar/Voice students)
- or
- PMUS 2751 - Functional Guitar Skills: Electric Guitar Styles (for Guitar/Voice students)
- PMUS 1100 - Music Theory I
- PMUS 1110 - Ear Training and Sight Singing I
- PMUS 1200 - Music Theory II
- PMUS 1210 - Ear Training and Sight Singing II
- PMUS 1500 - General Recital
PMUS 1500 - General Recital
PMUS 1500 - General Recital
PMUS 1500 - General Recital
2 semesters of 1000-level lessons for voice (2 semester hours)
2 semesters of 1000-level lessons for accompanying instrument (2 semester hours)
4 semesters of ensembles (4 semester hours)
- PMUS 2100 - Music Theory III
- PMUS 2110 - Ear Training and Sight Singing III
- PMUS 3830 - History and Literature of Music I
- PMUS 3831 - History and Literature of Music II
PMUS ____ - 3000/4000 level Music History Elective (3 semester hours)
- PMUS 4060 - Music Theory Analysis

Total: 40-41 Hours

MEIS Core Courses

- MUSC 2700 - Introduction to Music Business
- MUSC 3210 - Music and Entertainment Marketing
- or
- MUSC 3220 - Artist Management

or

- MUSC 3755 - Music Publishing
- MUSC 2540 - Audio Production I
- MUSC 2560 - Audio Production II

Total: 12 Hours

Singer/Songwriter Emphasis Courses

- PMUS 1500 - General Recital
PMUS 1500 - General Recital
PMUS 1500 - General Recital
PMUS 1500 - General Recital
- PMUS 3772 - Applied Singer/Songwriter (2 semesters; 4 semester hours)
4 semesters of ensembles (4 semester hours)
- PMUS 3200 - Popular Music Performance Skills
- PMUS 3310 - Intermediate Songwriting
- PMUS 3320 - Popular Music Arranging
- PMUS 4200 - Senior Recital Project
- PMUS 4310 - Advanced Songwriting
- PMUS 4772 - Applied Singer/Songwriter (2 semesters; 4 semester hours)

Total: 29 Hours

Music Business Emphasis, Audition Track Requirements

Students who wish to pursue the music business emphasis, audition track, are required to pass an entrance audition on their primary instrument or voice as part of the application process and pass varying levels of performance proficiency as part of the curricula.

Music Foundation Courses

- PMUS 1023 - Piano Class I
- PMUS 1024 - Piano Class II
- PMUS 1025 - Piano Class III
- PMUS 1026 - Piano Class IV
- PMUS 1100 - Music Theory I
- PMUS 1110 - Ear Training and Sight Singing I
- PMUS 1200 - Music Theory II
- PMUS 1210 - Ear Training and Sight Singing II
- PMUS 1500 - General Recital
PMUS 1500 - General Recital
PMUS 1500 - General Recital
PMUS 1500 - General Recital
2 semesters of 1000-level lessons (2 semester hours)
2 semesters of 2000-level lessons (2 semester hours)
6 semesters of ensembles (6 semester hours)

- PMUS 2100 - Music Theory III
- PMUS 2110 - Ear Training and Sight Singing III
- PMUS 2200 - Jazz Theory
- PMUS 3830 - History and Literature of Music I
- PMUS 3831 - History and Literature of Music II
- PMUS ____ - 3000/4000 level Music History Elective (3 semester hours)

Total: 42 Hours

MEIS Core Courses

- MUSC 2700 - Introduction to Music Business
- MUSC 2540 - Audio Production I
- MUSC 2560 - Audio Production II

Total: 9 Hours

Music Business Emphasis Courses

- MUSC 3210 - Music and Entertainment Marketing
- MUSC 3220 - Artist Management
- MUSC 3690 - Concert Promotion, Tour, and Venue Management
- MUSC 3700 - Music and Entertainment Business in the Digital Age
- MUSC 3710 - CAM Records
- MUSC 3720 - Law and the Music Industry
- MUSC 3755 - Music Publishing
- MUSC 4740 - Music Business Analysis
- MUSC 4890 - Music Business Senior Seminar
- Music Business Elective (3 semester hours)

Total: 30 Hours

Music Business Emphasis, Non-Audition Track Requirements

Students who wish to pursue the music business emphasis, non-audition track, are required to complete the Non-Audition Application Form as part of the application process. Students will be assessed for varying levels of performance proficiency as part of the curricula.

Music Foundation Courses

- PMUS 1023 - Piano Class I
- PMUS 1024 - Piano Class II
- PMUS 1025 - Piano Class III
- or
- PMUS 1040 - Class Guitar
- or

- PMUS 1050 - Voice Class I
- PMUS 1026 - Piano Class IV
- or
- PMUS 1041 - Class Guitar II
- or
- PMUS 1060 - Voice Class II
- PMUS 1100 - Music Theory I
- PMUS 1110 - Ear Training and Sight Singing I
- PMUS 1200 - Music Theory II
- PMUS 1210 - Ear Training and Sight Singing II
- PMUS 1310 - Sight Reading and Improvisation
- PMUS 1500 - General Recital
- PMUS 1500 - General Recital
- 2 semesters of applied lessons (2 semester hours)
- 2 semesters of ensembles (2 semester hours)
- PMUS 2310 - Introduction to Songwriting
- PMUS 2200 - Jazz Theory
- or
- PMUS 2220 - Commercial Electronic Music Composition
- or
- PMUS 3310 - Intermediate Songwriting
- PMUS 3830 - History and Literature of Music I
- PMUS 3831 - History and Literature of Music II
- PMUS ____ - 3000/4000 level Music History Elective (3 semester hours)
- Electives in Performance (3 semester hours)

Total: 38 Hours

MEIS Core Courses

- MUSC 2700 - Introduction to Music Business
- MUSC 2540 - Audio Production I
- MUSC 2560 - Audio Production II

Total: 9 Hours

Music Business Emphasis Courses

- MUSC 3210 - Music and Entertainment Marketing
- MUSC 3220 - Artist Management
- MUSC 3690 - Concert Promotion, Tour, and Venue Management
- MUSC 3700 - Music and Entertainment Business in the Digital Age
- MUSC 3710 - CAM Records
- MUSC 3720 - Law and the Music Industry
- MUSC 3755 - Music Publishing
- MUSC 4740 - Music Business Analysis
- MUSC 4890 - Music Business Senior Seminar
- Music Business Electives (6 semester hours)

Total: 33 Hours

Recording Arts Emphasis, Audition Track Requirements

Students who wish to pursue the recording arts emphasis, audition track, are required to pass an entrance audition on their primary instrument or voice as part of the application process, and pass varying levels of performance proficiency as part of the curricula. Students must be accepted into the recording arts emphasis before being able to take any of the upper-division (3000/4000 level) recording arts course work. Please contact an advisor in the College of Arts & Media at CAMadvising@ucdenver.edu for further information.

Music Foundation Courses

- PMUS 1023 - Piano Class I
- PMUS 1024 - Piano Class II
- PMUS 1025 - Piano Class III
- PMUS 1026 - Piano Class IV
- PMUS 1100 - Music Theory I
- PMUS 1110 - Ear Training and Sight Singing I
- PMUS 1200 - Music Theory II
- PMUS 1210 - Ear Training and Sight Singing II
- PMUS 1500 - General Recital
PMUS 1500 - General Recital
PMUS 1500 - General Recital
PMUS 1500 - General Recital
2 semesters of 1000-level lessons (2 semester hours)
2 semesters of 2000-level lessons (2 semester hours)
6 semesters of ensembles (6 semester hours)
- PMUS 2100 - Music Theory III
- PMUS 2110 - Ear Training and Sight Singing III
- PMUS 2200 - Jazz Theory
- PMUS 3830 - History and Literature of Music I
- PMUS 3831 - History and Literature of Music II
PMUS ____ - 3000/4000 level Music History Elective (3 semester hours)

Total: 42 Hours

MEIS Core Courses

- MUSC 2700 - Introduction to Music Business
- MUSC 3210 - Music and Entertainment Marketing
or
- MUSC 3220 - Artist Management
- MUSC 2540 - Audio Production I
- MUSC 2560 - Audio Production II

Total: 12 Hours

Other Course Requirements

- PHYS 3620 - Sound and Music **Must be completed or in progress while applying for the recording arts emphasis**

Total: 3 Hours

Recording Arts Emphasis Courses

- MUSC 3550 - Critical Listening for Recording Arts
- MUSC 4505 - Audio Post Production I
- MUSC 4550 - Audio Production III
- MUSC 4560 - Mastering & Advanced Digital Audio
- MUSC 4580 - Audio Production Seminar I
- MUSC 4581 - Audio Production Seminar II
- Recording Arts Electives (7 semester hours)

Total: 25 Hours

Recording Arts Emphasis, Non-Audition Track Requirements

Students who wish to pursue the recording arts emphasis, non-audition track, are required to complete the Non-Audition Application Form as part of the application process. Students will be assessed for varying levels of performance proficiency as part of the curricula. Students must be accepted into the recording arts emphasis before being able to take any of the upper-division (3000/4000 level) recording arts course work. Please contact an advisor in the College of Arts & Media at CAMadvising@ucdenver.edu for further information.

Music Foundation Courses

- PMUS 1023 - Piano Class I
- PMUS 1024 - Piano Class II
- PMUS 1025 - Piano Class III
- or
- PMUS 1040 - Class Guitar
- or
- PMUS 1050 - Voice Class I
- PMUS 1026 - Piano Class IV
- or
- PMUS 1041 - Class Guitar II
- or
- PMUS 1060 - Voice Class II
- PMUS 1100 - Music Theory I
- PMUS 1110 - Ear Training and Sight Singing I
- PMUS 1200 - Music Theory II
- PMUS 1210 - Ear Training and Sight Singing II

- PMUS 1310 - Sight Reading and Improvisation
- PMUS 1500 - General Recital
PMUS 1500 - General Recital
2 semesters of applied lessons (2 semester hours)
2 semesters of ensembles (2 semester hours)
- PMUS 2310 - Introduction to Songwriting
- PMUS 2200 - Jazz Theory
or
- PMUS 2220 - Commercial Electronic Music Composition
or
- PMUS 3310 - Intermediate Songwriting
- PMUS 3830 - History and Literature of Music I
- PMUS 3831 - History and Literature of Music II
PMUS _____ - 3000/4000 level Music History Elective (3 semester hours)
Electives in Performance (3 semester hours)

Total: 38 Hours

MEIS Core Courses

- MUSC 2700 - Introduction to Music Business
- MUSC 3210 - Music and Entertainment Marketing
or
- MUSC 3220 - Artist Management
- MUSC 2540 - Audio Production I
- MUSC 2560 - Audio Production II

Total: 12 Hours

Other Course Requirements

- PHYS 3620 - Sound and Music **Must be completed or in progress while applying for the recording arts emphasis**

Total: 3 Hours

Recording Arts Emphasis Courses

- MUSC 3550 - Critical Listening for Recording Arts
- MUSC 4505 - Audio Post Production I
- MUSC 4550 - Audio Production III
- MUSC 4560 - Mastering & Advanced Digital Audio
- MUSC 4580 - Audio Production Seminar I
- MUSC 4581 - Audio Production Seminar II
Recording Arts Electives (9 semester hours)

Total: 27 Hours

Philosophy BA

Students must declare a major by the time they have completed 60 semester hours of course work. A total of 36 semester hours must be completed for the philosophy major, at least 18 of which must be taken at CU Denver. A minimum grade of *C* (2.0) is required in each course. For those students who qualify for and fulfill the requirements for graduation with honors, a total of at least 39 hours is required.

A total of 18 upper-division semester hours are required for the major, and no more than 6 hours below the 3000 level may be counted toward the major. Courses taken at other institutions must be approved by an advisor in the Department of Philosophy to be applied toward the major.

Unless otherwise noted, registration for 4000-level courses in philosophy require a minimum grade of *C* (2.0) in every prior philosophy course and completion of at least PHIL 3002 or PHIL 3022 or permission of instructor.

Program Requirements

Required Courses

- PHIL 3002 - Ancient Greek Philosophy
- PHIL 3022 - Modern Philosophy
(It is recommended, but not required, that PHIL 3002 be taken before PHIL 3022)
- PHIL 3440 - Introduction to Symbolic Logic
- PHIL 4760 - Kant

Total: 12 Hours

Additional distribution requirements

(All are upper-division courses)

One course in social/political philosophy

One course in ethics

One course in Continental philosophy

One course in EITHER American or analytic philosophy

One course with specific focus in the history of philosophy (may be fulfilled by a course in a single figure)

Total: 15 Hours

Electives

Choose three:

One upper-division elective (may include courses from previous lists that are not counted toward those requirements)

Two electives at any level

Total: 9 Hours

Major Total: 36 Hours

Course work required for graduation with honors:

3-6 semester hours taken over two semesters of:

- PHIL 4950 - Honors Thesis

Physics BS

Program Requirements

Students must declare their intention to major in physics by the time they have completed 60 semester hours and complete between 47 and 51 semester hours (depending on the track chosen) in physics and related topics. Additionally, all tracks require 16 semester hours in math ancillary courses. No grade below a *C* (2.0) can be used to meet the requirements for the major. At least 12 semester hours of the requirements for the major must be completed at CU Denver.

A senior thesis, usually from participation in research, is required for all students wishing to graduate with departmental honors. All other students are encouraged to do research leading to a project report or senior thesis.

Required Courses Common to All Tracks

Required Physics Courses

- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I
- PHYS 2331 - General Physics II: Calculus-Based
- PHYS 2341 - General Physics Lab II
- PHYS 2711 - Vibrations and Waves
- PHYS 2811 - Modern Physics I
- PHYS 3120 - Methods of Mathematical Physics
- PHYS 3711 - Junior Laboratory I
- PHYS 3811 - Quantum Mechanics

Total physics courses required for all tracks: 25 Hours

Required Ancillary Courses

- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 2421 - Calculus III
- MATH 3195 - Linear Algebra and Differential Equations

Note: The department will accept the following combination of math courses in place of MATH 3195:

- MATH 3191 - Applied Linear Algebra
- MATH 3200 - Elementary Differential Equations

Total ancillary math courses required for all tracks: 16 Hours

Total required semester hours for all physics major tracks: 41 Hours

Pure and Applied Physics (Track 1)

Take in addition to the courses common to all tracks:

- PHYS 3211 - Analytical Mechanics
- PHYS 3411 - Thermal Physics
- PHYS 3721 - Junior Laboratory II
- * PHYS 4331 - Principles of Electricity and Magnetism
- PHYS 4711 - Senior Laboratory I
(or a course in computational physics approved by advisor)

* *Note:* Students who must *retake* PHYS 4331 may fulfill this requirement by obtaining a C or better in

- PHYS 4351 - Bioelectromagnetism

Elective Physics Courses

Six semester hours of physics-related electives at 3000-level or above approved by advisor, including up to 3 hours of independent study

Total Track 1 Specific Courses: 21 Hours

Plus total required courses for all physics majors: 41 hours

TRACK ONE TOTAL: 62 HOURS

Biophysics and Medical Physics (Track 2)

Take in addition to the courses common to all tracks:

- PHYS 3251 - Biophysics of the Body
- PHYS 3451 - Biophysics of the Cell
- PHYS 4351 - Bioelectromagnetism
(recommended option)
- -OR- PHYS 4331 - Principles of Electricity and Magnetism

Biophysics electives

Biophysics electives at the 3000-level or above approved by advisor (including up to 3 semester hours independent study and/or two courses, PHYS 3151 and PHYS 3161, listed below)

-OR-

The following four courses (an option primarily for pre-med physics majors):

- * BIOL 2051 - General Biology I
- * BIOL 2061 - General Biology II
- PHYS 3151 - Biophysics Outlook I

- PHYS 3161 - Biophysics Outlook II
Plus a laboratory:
- PHYS 3721 - Junior Laboratory II
-OR-
The following two courses (an option primarily for pre-med physics majors):
- * BIOL 2071 - General Biology Laboratory I
- * BIOL 2081 - General Biology Laboratory II

AND

Numerical modeling *or* probability and statistics course approved by advisor: **3 semester hours**

Total Track 2 Specific Courses: 24 Hours

Plus total required courses for all physics majors: 41 hours

TRACK TWO TOTAL: 65 HOURS

Major Total: 62-65 Hours

PRE-MED STUDENTS

Note: courses above marked * are generally required for medical school admissions. In addition, the following are generally required for medical school admissions, but NOT for the biophysics and medical physics track:

- CHEM 2031 - General Chemistry I
- CHEM 2038 - General Chemistry Laboratory I
- CHEM 2061 - General Chemistry II
- CHEM 2068 - General Chemistry Laboratory II
- CHEM 3411 - Organic Chemistry I
- CHEM 3418 - Organic Chemistry Laboratory I
- CHEM 3421 - Organic Chemistry II
- CHEM 3428 - Organic Chemistry Laboratory II

Total additional pre-med (but not required for Track 2): 19 Hours

Political Science BA

Undergraduate students must declare their intention to major in political science by the time they have completed 60 semester hours, and must complete a minimum of 36 semester hours in political science, of which at least 21 must be upper-division courses. Fifteen of the 36 hours must be taken from CU Denver faculty. Courses are distributed among the primary fields as listed in this section, i.e., American politics, comparative politics, international relations, political theory and public policy and administration. To count for the major, all course work must be completed with a grade of *C* (2.0) or better. Two cognate courses (which don't count toward the 36 hours) from the list below must also be completed.

Traditional Option

Required Core

- PSCI 1001 - Introduction to Political Science: The Quest for Freedom and Justice
- PSCI 1101 - American Political System
- PSCI 3011 - Research Methods
- -OR- PSCI 4011 - GIS in Political Science

Total: 9 Hours

Choose two:

- PSCI 4207 - Theories of Social and Political Change
- PSCI 4407 - Early Political Thought
- PSCI 4417 - Modern Political Thought
- PSCI 4427 - Law, Politics and Justice
- PSCI 4437 - Coercion and the State
- PSCI 4457 - American Political Thought

Total: 6 Hours

One 4000-level course in each of three fields:

American politics, comparative politics, and international relations

Total: 9 Hours

Experiential-Learning Requirement *

Choose one:

- PSCI 3914 - The Urban Citizen
 - PSCI 3939 - Internship
 - PSCI 4934 - CU at the Capitol
- Experiential learning project in any P SC class: **3 semester hours**

* Students with significant volunteer experience in the community or for whom the experiential-learning requirement poses a hardship may petition the chair to waive the requirement (36 hours still required).

Total: 3 Hours

Electives

Three political science elective courses

Total: 9 Hours

Political Science Total: 36 Hours

Required Cognate Courses

In addition to the 36 hours above, choose two of the following cognate courses:

- ECON 2012 - Principles of Economics: Macroeconomics
- ECON 2022 - Principles of Economics: Microeconomics
- HIST 1016 - World History to 1500
- HIST 1026 - World History Since 1500
- HIST 1211 - Western Civilization I
- HIST 1212 - Western Civilization II
- HIST 1361 - U.S. History to 1876
- HIST 1362 - U.S. History Since 1876

Total: 6 Hours

Major Total: 42 Hours

Public Policy Option

This option was designed for students who specifically desire to pursue careers in public policy and/or public administration in the public or nonprofit sectors. Grounded in basic political science theory and familiarity with American, comparative and international politics, this BA track emphasizes the specifically political aspects of public policy processes and settings. Cases will emphasize key policy issues confronting U.S. local, state and national decision makers and citizens. A focus on politics and the policy-making process will prepare students conceptually and methodologically to move beyond partisan politics to address how leaders can best mobilize resources to achieve constituent goals consistent with the public interest.

Required Core

- PSCI 1001 - Introduction to Political Science: The Quest for Freedom and Justice
- PSCI 1101 - American Political System
- PSCI 3011 - Research Methods

Total: 9 Hours

One 4000-level course in each of the following three fields:

American Politics

- PSCI 4002 - Topics in Political Science
- PSCI 4014 - Media and Politics
- PSCI 4024 - Legislatures and Legislation
- PSCI 4025 - Local Governance and Globalization
- PSCI 4044 - The Presidency
- PSCI 4094 - Seminar: American Politics
- PSCI 4124 - Denver Politics
- PSCI 4324 - Politics, Public Policy and Leadership
- PSCI 4354 - Environmental Politics
- PSCI 4374 - Public Priorities for the 21st Century
- PSCI 4477 - Constitutional Law I
- PSCI 4487 - Constitutional Law II
- PSCI 4545 - Immigration Politics

Comparative Politics and International Relations

- PSCI 4085 - Comparative Public Policy
- PSCI 4124 - Denver Politics
- PSCI 4185 - Corruption in the U.S. and Abroad
- PSCI 4226 - The United Nations in World Affairs
- PSCI 4236 - American Foreign Policy
- PSCI 4266 - International Law
- PSCI 4326 - Advanced International Political Economy: Globalization
- PSCI 4645 - Comparative Political Leadership

Public Policy and Administration

- PSCI 4009 - Politics of the Budgetary Process
- PSCI 4024 - Legislatures and Legislation
- PSCI 4084 - Local Government and Administration
- PSCI 4274 - Conflict Resolution and Public Consent Building
- PSCI 4414 - Organizational Change Agents
- PSCI 4644 - Ethical Responsibilities of Leaders

Total: 9 Hours

Elective courses

Choose any two additional courses from the list above, plus choose one other upper or lower division PSCI course.

Total: 9 Hours

Two political theory courses

- PSCI 4427 - Law, Politics and Justice
- PSCI 4437 - Coercion and the State

Total: 6 Hours

Experiential-Learning Requirement *

Choose one:

- PSCI 3939 - Internship
- PSCI 4934 - CU at the Capitol

* Students with significant volunteer experience in the community or for whom the experiential-learning requirement poses a hardship may petition the chair to waive the requirement (36 hours still required).

Total: 3 Hours

Two cognate courses

- ECON 2012 - Principles of Economics: Macroeconomics
- ECON 2022 - Principles of Economics: Microeconomics

Total: 6 Hours

Public Policy Option Total: 42 Hours

Psychology BA

Students should consult with the advisor when they declare a psychology major, which must be done once they have completed 60 semester hours of course work. Psychology BA major requirements include at least 37 and not more than 48 semester hours in psychology. Of these, at least 15 hours must be in upper-division courses taught by CU Denver faculty. No grade below C (2.0) will be accepted toward the major requirements. Note that a prior college-level algebra course is strongly recommended for PSYC 2090.

PSYC 3939, Internship/Cooperative Education, does NOT count toward the 37-hour minimum or the 15-hour upper-division requirement, but it does count as elective psychology credit.

Program Requirements

Required Courses

- PSYC 1000 - Introduction to Psychology I
- PSYC 1005 - Introduction to Psychology II
- PSYC 2090 - Statistics and Research Methods
- PSYC 2220 - Biological Basis of Behavior

Total: 13 Hours

Group A: Choose three, including one or both PSYC 3222 and PSYC 4144:

- PSYC 3104 - Behavioral Genetics
- PSYC 3222 - Principles of Learning and Behavior
- PSYC 3254 - Introduction to Animal Behavior
- PSYC 3262 - Health Psychology
- PSYC 3263 - Hormones and Behavior
- PSYC 3265 - Drugs, Brain and Behavior
- PSYC 3724 - Developmental Psychobiology
- PSYC 3810 - Neuropsychology
- PSYC 3822 - Aging, Brain and Behavior
- PSYC 4054 - Behavioral Neuroscience
- PSYC 4144 - Human Cognition
- PSYC 4164 - Psychology of Perception

Total: 9 Hours

Group B: Choose four, including at least two or all three of PSYC 3205, PSYC 3305, and PSYC 4415:

- PSYC 3090 - Research Methods in Psychology
- PSYC 3205 - Human Development I: Child Psychology
- PSYC 3215 - Human Development II: Adolescence and Adulthood
- PSYC 3235 - Human Sexuality

- PSYC 3305 - Abnormal Psychology
- PSYC 3405 - Family Psychology
- PSYC 3505 - Psychology and the Law
- PSYC 3610 - Psychological Trauma
- PSYC 3611 - Psychology of Women
- PSYC 3612 - Domestic Abuse
- PSYC 4415 - Experimental Social Psychology
- PSYC 4455 - Theories of Personality
- PSYC 4485 - Psychology of Cultural Diversity
- PSYC 4500 - Psychotherapy
- PSYC 4730 - Clinical Psychology: Ethics and Issues

Total: 12-13 Hours

One integrative course:

- PSYC 4511 - History of Psychology

Total: 3 Hours

BA Major Total: 37-38 Hours

PSYCHOLOGY BS REQUIREMENTS

Psychology BS

Students must declare a major by the time they have completed 60 semester hours of course work. To be admitted to the BS major, students must have sophomore standing and have received grades of *B* or better in General Biology I and II for majors with laboratory, or the equivalent. Students must take at least 48 hours and a maximum of 56 semester hours in psychology, biology and chemistry that will count toward graduation. A minimum of 15 upper-division semester hours must be taken from CU Denver faculty. No grade below *C* is acceptable toward the major requirements; i.e., psychology, biology or chemistry courses in which a student earns a *C-* or below will not count toward the major.

Psychology Requirements

Required Psychology Courses

- PSYC 1000 - Introduction to Psychology I
- PSYC 1005 - Introduction to Psychology II
- PSYC 2090 - Statistics and Research Methods
- PSYC 2220 - Biological Basis of Behavior
- PSYC 4054 - Behavioral Neuroscience

Total: 16 Hours

Choose two:

- PSYC 3090 - Research Methods in Psychology
- PSYC 3104 - Behavioral Genetics
- PSYC 3222 - Principles of Learning and Behavior
- PSYC 3254 - Introduction to Animal Behavior
- PSYC 3263 - Hormones and Behavior
- PSYC 3265 - Drugs, Brain and Behavior
- PSYC 3724 - Developmental Psychobiology
- PSYC 3810 - Neuropsychology
- PSYC 3822 - Aging, Brain and Behavior
- PSYC 4164 - Psychology of Perception

Total: 6-7 Hours

Experiential Learning Requirement

Students must complete at least one of the following (all require consultation with BS advisor AND permission of instructor):

- PSYC 3939 - Internship (2.75 GPA required)
- PSYC 4840 - Independent Study: PSYC
Honors Project in Psychology (3.5 GPA required): **3 Semester Hours**

Total: 3 Hours

Physical and Biological Science Requirements

Required Courses

- BIOL 2051 - General Biology I
- BIOL 2061 - General Biology II
- BIOL 2071 - General Biology Laboratory I
- BIOL 2081 - General Biology Laboratory II
- CHEM 2031 - General Chemistry I
- CHEM 2038 - General Chemistry Laboratory I
- CHEM 2061 - General Chemistry II
- CHEM 2068 - General Chemistry Laboratory II

Total: 17 Hours

Choose two:

- BIOL 3225 - Human Physiology
- BIOL 3244 - Human Anatomy
- BIOL 3611 - General Cell Biology
- BIOL 3654 - General Microbiology
- BIOL 3832 - General Genetics
- BIOL 4134 - Human Genetics
- BIOL 4165 - Neurobiology
- CHEM 4810 - General Biochemistry I

Total: 6-8 Hours

BS Major Total: 48-51 Hours

Additional elective courses in psychology, biology and chemistry may be taken up to the maximum of 56 hours.

PSYCHOLOGY BA REQUIREMENTS

Public Health BA

Director: Karen Lutfey, Professor of Public Health

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Website:

<http://www.ucdenver.edu/academics/colleges/CLAS/Departments/hbsc/Programs/Bachelors/Pages/Bachelors.aspx>

The Bachelor of Arts in Public Health consists of 43 credit hours in required classes. Each class must be completed with a grade of C (2.0) or higher to count for the major. The major classes for the BA degree are organized into four categories: (1) public health core, (2) quantitative methods, (3) biological sciences and (4) electives.

[FOR BS IN PUBLIC HEALTH, CLICK HERE](#)

Program Requirements

Public Health Required Courses

Seven courses:

- PBHL 2000 - Introduction To Public Health
- PBHL 2020 - Introduction to Environmental Health
- PBHL 3001 - Introduction to Epidemiology
- PBHL 3030 - Health Policy
- PBHL 3070 - Perspectives in Global Health
- PBHL 4040 - Social Determinants of Health
- PBHL 4099 - Capstone Experience in Public Health

Total: 23 Hours

Quantitative Methods

This one-course requirement may be fulfilled with a wide array of statistics courses offered in a number of disciplines. Examples include:

ANTH 4050, MATH 2830, PSYC 3090, SOCY 3121

The particular class chosen to fulfill the quantitative methods requirement should be cleared with the undergraduate program director/advisor in advance.

Total: 3 Hours

Electives

The three-course electives requirement may be fulfilled from a wide array of over 100 courses offered in the College of Liberal Arts and Sciences. A listing of pre-approved classes is available online. Other classes may be chosen to fulfill the electives requirement, but must be cleared with the undergraduate program director/advisor in advance.

Total: 9 Hours

Public Health Core Total: 35 Hours

Biological Sciences Ancillary Courses

Choose two of the following (also fulfill the campuswide core requirement in biological and physical sciences):

- BIOL 1550 - Basic Biology: Ecology and the Diversity of Life
- -OR- BIOL 2051 - General Biology I
- **with** BIOL 2071 - General Biology Laboratory I
- BIOL 1560 - Basic Biology: From Cells to Organisms
- -OR- ANTH 1303 - Introduction to Biological Anthropology

Total: 8 Hours

Major Total: 43 Hours

Public Health BS

Director: Karen Lutfey, Professor of Public Health

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E-mail: Karen.Lutfey@ucdenver.edu

Website:

<http://www.ucdenver.edu/academics/colleges/CLAS/Departments/hbhc/Programs/Bachelors/Pages/Bachelors.aspx>

The Bachelor of Science in Public Health consists of 71 credit hours in required classes. Each class must be completed with a grade of C (2.0) or higher to count for the major. The major classes for the BS degree are organized into five categories: (1) public health core, (2) quantitative methods, (3) biological sciences, (4) additional math and science and (5) electives.

[FOR BA IN PUBLIC HEALTH, CLICK HERE](#)

Program Requirements

Public Health Required Courses

Seven courses (two still in development):

- PBHL 2000 - Introduction To Public Health
- PBHL 2020 - Introduction to Environmental Health
- PBHL 3001 - Introduction to Epidemiology
- PBHL 3030 - Health Policy
- PBHL 3070 - Perspectives in Global Health
- PBHL 4040 - Social Determinants of Health
- PBHL 4099 - Capstone Experience in Public Health

Total: 23 Hours

Quantitative Methods

This one-course requirement may be fulfilled with a wide array of statistics courses offered in a number of disciplines. Examples include:

ANTH 4050, MATH 2830, PSYC 3090, SOCY 3121

The particular class chosen to fulfill the quantitative methods requirement should be cleared with the undergraduate program director/advisor in advance.

Total: 3 Hours

Electives

The two-course electives requirement may be fulfilled from a wide array of over 100 courses offered in the College of Liberal Arts and Sciences. A listing of pre-approved classes is available online. Other classes may be chosen to fulfill the electives requirement, but must be cleared with the undergraduate program director/advisor in advance.

Total: 6 Hours

Public Health Core Total: 32 Hours

Biological Sciences Ancillary Courses

Take all of the following lecture/lab courses (also fulfill the campuswide core requirement in biological and physical sciences):

- BIOL 2051 - General Biology I
- BIOL 2071 - General Biology Laboratory I
- BIOL 2061 - General Biology II
- BIOL 2081 - General Biology Laboratory II

Total: 8 Hours

Additional Math and Science Ancillary Courses

Take all of the following:

- CHEM 2031 - General Chemistry I
- CHEM 2038 - General Chemistry Laboratory I
- CHEM 2061 - General Chemistry II
- CHEM 2068 - General Chemistry Laboratory II
- CHEM 3411 - Organic Chemistry I
- CHEM 3421 - Organic Chemistry II
- MATH 1401 - Calculus I
(fulfills the math requirement for the campuswide core)
- PHYS 2010 - College Physics I
- PHYS 2030 - College Physics Lab I
- PHYS 2020 - College Physics II
- PHYS 2040 - College Physics Lab II

Total: 31 Hours

Major Total: 71 Hours

Sociology BA

Students must declare a major by the time they have completed 60 semester hours of course work. The major requires a total of 34 hours with an average grade of *C* (2.0) in all courses. At least 16 of the 34 hours must be upper-division (3000-4000 level) courses. The maximum number of hours allowed in sociology is 48.

Course Requirements

Core Courses

The core consists of the following group of courses, all of which must be completed with a grade of *C* (2.0) or better:

- SOCY 1001 - Introduction to Sociology
- SOCY 3001 - Urban Sociology
- * SOCY 3111 - Research Methods
- * SOCY 3121 - Statistics
- * SOCY 3150 - History of Sociological Theory
- * SOCY 3160 - Contemporary Sociological Theory

Total: 19 Hours

*Must be taken from Downtown Campus faculty

Electives: 15 Hours

Choose a minimum of 15 hours and a maximum of 29 hours of electives in sociology, with an average grade of *C* (2.0) in all courses.

Major Total: 34 Hours

All prospective majors should contact the department as early in their academic careers as possible for information and for assignment to a major advisor. Transfer or returning students should consult with the department chairman concerning completion of the core courses.

The department requires that at least 13 hours of sociology be taken from Downtown Campus faculty, including the following courses: SOC 3111, 3121, 3150 and 3160.

Spanish BA

The Spanish program studies the language, linguistics, literature, culture and civilization of Spain, Spanish America and the Spanish-speaking areas of the United States.

Admission and Grade Requirements

To be admitted to major status in Spanish, students must have an overall GPA of C+ (2.3). The minimum grade acceptable in any course applied to a Spanish major or minor is a C (2.0). The GPA in all courses applied to a Spanish major or minor at UC Denver must be 2.5. No courses taken on a pass/fail basis may be credited toward a Spanish major or minor.

Residency Requirement

The BA in Spanish requires 30 semester hours of upper-division course work in Spanish and 6 additional hours in related fields. A minimum of 18 semester hours of Spanish course work for the major, and 9 hours for the minor, must be taken from Spanish faculty at CU Denver. Courses taken at other institutions while a student is enrolled at CU Denver may be applied to the major only with departmental approval before enrollment in those courses.

Proficiency Requirement

Before enrolling in their final semester in the language, Spanish majors must be evaluated by the faculty in oral and written skills. Students must see their Spanish advisor for specific information.

Course Requirements for the Major

Students majoring in Spanish for the BA degree must complete 30 semester hours of upper-division course work, at least 12 of which must be at the 4000 level. All course work applied to the 30-semester-hour minimum must be taught in Spanish. In addition, students must complete 6 semester hours in courses in related fields outside the curriculum in Spanish.

Program Requirements

Language, Literature and Culture Track

LITERATURE

- SPAN 3252 - Introduction to the Study of Literature
At least one course on the literature of Spain: **3 semester hours**
At least one course on the literature of Spanish America: **3 semester hours**

Total: 9 Hours

LANGUAGE SKILLS AND THEORY

- SPAN 3060 - Hispanic Phonetics: Theory and Practice
6 additional hours in language skills and theory

Total: 9 Hours

CULTURE AND CIVILIZATION OF SPAIN OR SPANISH AMERICA

Choose two:

- SPAN 3070 - Bilingual Communities: Spanish as a Language of Contact
- SPAN 3212 - Spanish American Culture and Civilization
- SPAN 3213 - Contemporary Latin American Culture and Institutions
- SPAN 3221 - Culture and Civilization of Spain I
- SPAN 3222 - Culture and Civilization of Spain II
- SPAN 3223 - Contemporary Spanish Culture and Institutions
- SPAN 3230 - Ibero-American Cultures through Film
- SPAN 4230 - Modern Culture of Spain through Film and Narrative

Total: 6 Hours

ELECTIVES

Two SPAN electives, to be taken at the 4000 level

Total: 6 Hours

RELATED FIELDS

Choose 2 courses from the following fields of study (see Modern Languages departmental web site for a list of pre-approved courses):

Latin American studies (from fields such as history, geography, political science, art history)
Hispanic American studies
Linguistics (in the fields of anthropology or English)
Comparative literature
Upper-division courses in another foreign language

Total: 6 Hours

MAJOR TOTAL: 36 Hours

International Language and Culture for the Professions Track

This option in the Spanish major offers career possibilities, both in government and private industry, at home and abroad. Languages are useful in business, industry, commerce, civil service, law, library science, media, science, economics, health and social sciences. Students who follow this course of study could also qualify as teachers of general business subjects in bilingual as well as traditional school systems. (However, students who wish to be certified to teach Spanish in the public schools should consult the department for information concerning the undergraduate language licensure program.)

International Spanish for the professions is a controlled-enrollment major that takes two years to complete. Interested students should contact the Spanish advisor in the Department of Modern Languages to declare the major. This should be done as early as possible in the student's academic career, but not later than the second semester of the sophomore year.

PREREQUISITES

(These courses do not count toward the major total of 45 semester hours)

- ECON 2012 - Principles of Economics: Macroeconomics
- ECON 2022 - Principles of Economics: Microeconomics
- MATH 1070 - Algebra for Social Sciences and Business
- -OR- MATH 1110 - College Algebra
(or higher level math course)
- SPAN 2110 - Second Year Spanish I
- -OR- SPAN 2120 - Second Year Spanish II

REQUIRED SPANISH COURSES

- SPAN 3082 - Introduction to Translation I
- SPAN 3252 - Introduction to the Study of Literature
- SPAN 3700 - Spanish for International Business I
- SPAN 3710 - Spanish for International Business II

Total: 12 Hours

Two of the following language skills and theory courses:

- SPAN 3010 - Advanced Conversation and Composition I
- SPAN 3020 - Advanced Conversation and Composition II
- SPAN 3060 - Hispanic Phonetics: Theory and Practice
- SPAN 3310 - Spanish Writing and Grammar I

Total: 6 Hours

One of these must be either SPAN 3213 or 3223, while the other may be any of the following:

- SPAN 3070 - Bilingual Communities: Spanish as a Language of Contact
- SPAN 3212 - Spanish American Culture and Civilization
- SPAN 3213 - Contemporary Latin American Culture and Institutions
- SPAN 3222 - Culture and Civilization of Spain II
- SPAN 3223 - Contemporary Spanish Culture and Institutions
- SPAN 3230 - Ibero-American Cultures through Film

Total: 6 Hours

Electives

Two SPAN electives, to be taken at the 4000 level.

Total: 6 Hours

SPANISH TOTAL: 30 Hours

BUSINESS COURSES

(please be aware of prerequisites in business course descriptions)

- ACCT 2200 - Financial Accounting and Financial Statement Analysis
- MGMT 1000 - Introduction to Business
- MGMT 3000 - Managing Individuals and Teams
- MGMT 4400 - Environments of International Business
- MKTG 3000 - Principles of Marketing

Business Total: 15 Hours

SPANISH BUSINESS OPTION TOTAL: 45 Hours

RECOMMENDED:

- Language study abroad / international travel or field study
- Internship in target language
- Official proficiency exam

Undergraduate Licensure Program in Spanish

With this option, students complete a major in Spanish along with additional course work required for certification to teach Spanish in the public schools. This program should be chosen early in the students' careers. See the description of Undergraduate Teacher Licensure on the School of Education & Human Development (SEHD) Urban Community Teacher Education program page for more information. You may also contact the CLAS Advising Office (phone 303-556-2555 or visit North Classroom, 4002) and the Spanish advisor for more information.

Honors in Spanish

Students who complete all the requirements for the Spanish major (as outlined above) and meet the following criteria are encouraged to talk with the Spanish faculty about participation in the honors program. Successful completion of this program by students majoring in Spanish leads to graduation with the distinction of *cum laude*, *magna cum laude* or *summa cum laude*.

Cum laude

Overall GPA of 3.5 or better and Spanish GPA of 3.8 or better

Magna cum laude or summa cum laude

1. Overall GPA of 3.5 or better and Spanish GPA of 3.8 or better
—and—
2. *6 semester hours of Spanish 4840, Independent Study*, spread over two semesters. The candidate must present the independent study topic for approval by the faculty honors committee by the end of the semester preceding the independent study. At the end of the independent study project, and at least one month before the end of the second semester, the candidate shall submit a **written thesis** to the faculty honors committee.
3. The designation of *magna* or *summa* will be the decision of the faculty honors committee.

Theatre, Film and Television BA – Theatre Emphasis

The Department of Theatre, Film and Video Production offers a BA with an emphasis in theatre designed for students who are interested in exploring their vision and world through stories and performance. The emphasis, which is rooted in the liberal arts, gives lifelong skills for success in the rapidly changing world. Through writing, performance, analytical and communication work in theatre and media, students will have a foundation to pursue their goals. This BA provides a solid preparation for graduate school or careers in a range of areas. Consult an advisor in the College of Arts & Media at CAMadvising@ucdenver.edu for more information.

All students pursuing this emphasis complete a total of at least 49 semester hours for the major. Each course must be completed with a grade of C (2.0) or better. At least 24 of the major semester hours must be earned at CU Denver. Students must also follow the College of Arts and Media's [general degree requirements](#).

Admissions Procedures

Students must apply and be accepted to the university with a declared major of BA Theater, Film and Television. No separate application to the department or portfolio submission is required for admission into the degree program and emphasis.

Transfer Students

Transfer students should contact CAMadvising@ucdenver.edu for information about applying prior semester hours toward the BA.

Required Emphasis Courses

- THTR 1000 - Visual Culture
- THTR 1001 - Introduction to Theatre & Arts in the Community
- THTR 1110 - Production Design: Theatre, Film and Video
- THTR 1220 - Acting Skills Module I
- THTR 1890 - Production Crafts I
- THTR 1891 - Production Crafts Lab
- THTR 2220 - Acting: Performance for Film, Theatre, and TV
- THTR 2900 - Dramatic Writing for Stage and Screen
- THTR 3115 - Critical Perspectives on Performance
- THTR 3300 - Studio I: Dynamics of Content Creation
- THTR 3500 - Elements of Directing
- THTR 3520 - Acting/Directing Studio
- THTR 3610 - Performance: Theory/History/Criticism I
- THTR 3620 - Performance: Theory/History/Criticism II
- THTR 3725 - Arts in Action
- THTR 3735 - Career Creation
- THTR 4090 - Senior Seminar & Project
or
- THTR 4200 - Capstone: Theatre Practice

Total: 49 Hours

Theatre, Film and Television BFA – Film and TV Emphasis

The Department of Theatre, Film and Video Production offers a bachelor of fine arts (BFA) in theatre, film and television with an emphasis in film and television. This BFA emphasis provides training at a professional skill level, culminating in a comprehensive review that requires successful completion of a portfolio and/or thesis project. The emphasis is designed so that students will progress through the semesters as a cohort group. Students will not only work on their own projects but will assist on group projects similar to our episodic web series, a television pilot and also our department's sponsored film project (all written by students). Students will graduate with theoretical and historical perspectives, and hands-on experiences in film and television production. This prepares students to begin their careers with entry-level positions in film or television, start their personal creative work or continue their studies in a graduate program. Consult an advisor in the College of Arts & Media at CAMadvising@ucdenver.edu for more information.

All students pursuing this emphasis complete a total of at least 69 semester hours for the major: see detailed course requirements below. Each course must be completed with a grade of C (2.0) or better. At least 24 of the major semester hours must be earned at CU Denver. Students must also follow the College of Arts & Media's [general degree requirements](#).

Admission Procedures

Students seeking this BFA emphasis should apply to the university and be accepted under the Theatre, Film, and Television BFA program. No separate application to the department or portfolio submission is required. Given the cohort nature of the program, students should be aware that failing to take courses in order may delay their graduation date.

Transfer Students

Transfer students should contact CAMadvising@ucdenver.edu for information about applying prior semester hours toward the BFA.

Student Handbook

All students in the film and television emphasis are required to know and abide by the policies and procedures regarding the use of departmental equipment and facilities, outlined on the Equipment Checkout Agreement Form, and available by contacting CAMadvising@ucdenver.edu or the department.

Required Emphasis Courses:

- FITV 1000 - Introduction to Visual Culture
- FITV 1040 - Lighting, Grip, and Sound Introductory Workshop
- FITV 1050 - Production I Basics of Film and Television
- FITV 1200 - Aesthetics of Television
- FITV 1550 - Scriptwriting 1 - Fiction
- FITV 1600 - Writing Short Film:Non Fiction
- FITV 2040 - Introduction to Digital Effects
- FITV 2050 - Production II Film and Television Techniques
- FITV 2090 - Production Management for Film and Television

- FITV 2220 - Acting for Film and Television
- FITV 2570 - Directing for Film and Television
- FITV 2670 - Cinematography for Directors
- FITV 3040 - TV Studio Production
- or
- FITV 3090 - Producing Episodic Television
- FITV 3050 - Production III: Junior Project
- FITV 3060 - Editing for Film and Television
- FITV 3200 - History of Film to 1937
- FITV 3300 - History of Film from 1938
- FITV 3500 - Writing for Episodic Television
- FITV 4000 - Senior Thesis Production
- FITV 4010 - Senior Thesis Post-Production
- FITV 4050 - Shooting Action
- FITV 4055 - Documentary Production
- THTR 1110 - Production Design: Theatre, Film and Video

Total: 69 Hours

Undergraduate Minors

Anthropology Minor

A minimum of 18 semester hours in anthropology must be completed with an average of *C* (2.0) or better. Nine of the 18 hours must be upper division and 9 hours must be taken from CU Denver faculty.

Program Requirements

Required Courses

Choose a minimum of three courses from the following:

- ANTH 1302 - Introduction to Archaeology
- ANTH 1303 - Introduction to Biological Anthropology
- ANTH 2102 - Culture and the Human Experience
- ANTH 3101 - Foundations of Cultural Anthropology
- ANTH 3301 - World Prehistory
- ANTH 3512 - Human Evolution

Total: 9-11 Hours

Elective Courses

Total: 7-9 Hours

Minor total: 18 Hours

Art History Minor

To declare a CAM minor, please see the College of Arts & Media's Office of Advising and Student Services in Arts Building, 177.

Students may transfer up to 6 semester hours of non-CU Denver courses toward a minor. All other courses must be taken at CU Denver. Each course must be completed with a grade of C (2.0) or better. Students may use up to 6 semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to the major requirements. Consult an advisor in the College of Arts & Media at CAMadvising@ucdenver.edu for more information.

Program Requirements

- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II
 - _____ - Upper-division Art History Electives (9 semester hours)
 - _____ - Studio Arts Elective (3 semester hours)

Total: 18 Hours

Astrophysics Minor

Astrophysics is an important and well-represented subdiscipline of physics. It includes the study of the solar system, galactic and extra-galactic astrophysics, as well as cosmology. A minor in this field combines a theoretical approach with observational analysis. There is also opportunity to do research in this field.

While the Department of Physics offers minors in both physics and astrophysics, it is not possible to receive minors in both fields. A physics minor is not an option for physics majors.

The astrophysics minor requires a total of 17 semester hours, in which no grade below a *C* (2.0) may be used to meet the requirements for the minor. At least 6 semester hours taken for the minor must be completed at the Denver Campus. Requirements for the minor in astrophysics may be used to fulfill the requirements of the major in physics. However, a student majoring in physics who wants to minor in astrophysics needs to take 15 semester hours in astrophysics that do not overlap with the major.

Program Requirements

Required Physics Courses:

- PHYS 1052 - General Astronomy I

Either of the following two sequences:

- PHYS 2010 - College Physics I
 - PHYS 2020 - College Physics II
 - PHYS 2030 - College Physics Lab I
 - PHYS 2040 - College Physics Lab II
- Sequence Total: 10 Hours**
- OR-
- PHYS 2311 - General Physics I: Calculus-Based
 - PHYS 2321 - General Physics Lab I
 - PHYS 2331 - General Physics II: Calculus-Based
 - PHYS 2341 - General Physics Lab II
- Sequence Total: 10 Hours**

Total Required Courses: 14 Hours

Elective Physics Courses

Choose one:

- PHYS 3040 - Modern Cosmology
- PHYS 3050 - General Astronomy II
- PHYS 3082 - Energy and the Environment
- PHYS 3411 - Thermal Physics

- PHYS 3820 - Subatomic Physics
- * PHYS 3840 - Independent Study: PHYS
- PHYS 3939 - Internship
- PHYS 4510 - Optics
- PHYS 4550 - Astrophysics
- * PHYS 4840 - Independent Study: PHYS
- * PHYS 4920 - Advanced Undergraduate Seminar
- * PHYS 4931 - Internship in Applied Physics
- * PHYS 4980 - Advanced Physics Topics

Total Electives: 3 Hours

Minor Total: 17 Hours

*Topics in these classes vary, as do the number of credits which can be earned. See departmental advisor for approval.

Biology Minor

For a biology minor, students must complete all biology core requirements (20-23 hours), of which a minimum of 9 hours must be completed in residence at CU Denver. The minimum grade in each CU Denver course is C- (1.7). In addition, students must complete one year of general chemistry including laboratory with a grade of C- (1.7) or higher.

Minor Requirements

Required Biology Courses

- BIOL 2051 - General Biology I
- BIOL 2061 - General Biology II
- BIOL 2071 - General Biology Laboratory I
- BIOL 2081 - General Biology Laboratory II
- BIOL 3411 - Principles of Ecology
- OR BIOL 3412 - Fundamentals of Applied Ecology
- BIOL 3611 - General Cell Biology
- BIOL 3832 - General Genetics

One upper division biology lab course. Choose one of the following:

- BIOL 3225 - Human Physiology
- BIOL 3244 - Human Anatomy
- BIOL 3654 - General Microbiology
- BIOL 4335 - Plant Science
- BIOL 3413 - Ecology Laboratory
- BIOL 3612 - Cell Biology Laboratory
- BIOL 4125 - Molecular Biology Laboratory
- BIOL 4345 - Flora of Colorado
- BIOL 4640 - Mammalogy
- BIOL 4910 - Field Studies
- BIOL 4644 - Advanced Human Anatomy Laboratory

Ancillary chemistry courses:

- CHEM 2031 - General Chemistry I
- CHEM 2038 - General Chemistry Laboratory I
- CHEM 2061 - General Chemistry II
- CHEM 2068 - General Chemistry Laboratory II

Minor Total: 20-23 Biology Hours and 9 Chemistry Hours

Business Administration Minor

Students in other undergraduate schools and colleges at the Denver campus wishing to take a minor in business administration must have a 2.0 GPA to enter as a business minor plus a 2.0 GPA in business courses.

Prerequisites

- ISMG 2050 - Introduction to Business Problem Solving
- MATH 1070 - Algebra for Social Sciences and Business **OR**
- MATH 1110 - College Algebra **and**
- MATH 1080 - Polynomial Calculus
- DSCI 2010 - Business Statistics **OR**
a statistics class approved by the Business School **and**
- ECON 2022 - Principles of Economics: Microeconomics

Required Courses

Business Administration Minor

- ACCT 2200 - Financial Accounting and Financial Statement Analysis
- BLAW 3000 - Legal and Ethical Environments of Business I
- FNCE 3000 - Principles of Finance
- MKTG 3000 - Principles of Marketing
- MGMT 1000 - Introduction to Business
- MGMT 3000 - Managing Individuals and Teams

Twelve of these 18 hours must be taken while in residence at the Denver campus. If the student has already taken the equivalent of one or more of these courses, other higher-level business courses may be substituted with Business School approval. Up to 6 hours of the 18 required business courses may be taken at another institution. Transfer credit will be granted on the same basis that transfer credit is granted for courses taken by business majors.

Chemistry Minor

The objective of the chemistry minor is to provide broad introductory course work and laboratory experience to science majors without the more technical mathematical and chemical prerequisites required of the chemistry major. The chemistry minor is open to all CLAS students and should prove beneficial for science majors, pre-professional health science majors and students seeking science education certification.

Course work and grade requirements that must be satisfied to obtain a chemistry minor include:

- a minimum of 20 semester hours of chemistry courses, including at least 10 at the upper division level
- upper-division course work must include three of the six subdisciplines that comprise chemistry: analytical, biochemistry, inorganic, organic, physical and environmental chemistry
- a minimum 2.0 GPA for chemistry courses taken at CU Denver
- all chemistry minor courses must be taken for a letter grade rather than with the pass/fail grading option
- to satisfy the department residency requirement, a minimum of 7 upper-division hours of chemistry must be taken at the Denver campus

Course Requirements

All upper division chemistry courses at CU Denver will satisfy course work requirements for the minor. Furthermore, the Department of Chemistry offers courses that have minimum chemistry and mathematics prerequisites and should be considered for the chemistry minor degree. Choose from the following suggested courses, or other electives approved by your chemistry minor advisor.

Analytical

- CHEM 3111 - Analytical Chemistry
- CHEM 3118 - Analytical Chemistry Laboratory

Biochemistry

- CHEM 3810 - Biochemistry

Organic

- CHEM 3411 - Organic Chemistry I
- CHEM 3418 - Organic Chemistry Laboratory I
- CHEM 3421 - Organic Chemistry II
- CHEM 3428 - Organic Chemistry Laboratory II
- CHEM 3498 - Honors Organic Chemistry Laboratory II

Inorganic

- CHEM 3011 - Inorganic Chemistry

Physical

Course selections to be announced.

Environmental

- CHEM 4700 - Environmental Chemistry

MINOR TOTAL: 20 HOURS (minimum)

To register your minor in chemistry, please visit the CLAS advising office in NC 4002. After establishing your minor status, you are encouraged to meet with the chemistry minor advisor, Professor Mark Anderson in NC 3002C.

Chinese Studies Minor

Director: Kuan-Yi Rose Chang

Faculty Advisors:

Kuan-Yi Rose Chang, Plaza 118X, 303-556-2434

Ji Chen, Lawrence Street Center 390K, 303-556-6611

Xiaoja Hou, King Center 560, 303-556-8315

Stephen C. Thomas, King Center 520, 303-556-5259

Office: Modern Languages, Plaza 118X

Telephone: 303-556-2434

Website:

<http://www.ucdenver.edu/academics/colleges/CLAS/Departments/ModernLanguages/Programs/Pages/Minors.aspx>

This innovative program offers specialized study of China through course work in the related disciplines of language, anthropology, history, geography, literature, political science and business. China's economic and political presence is increasingly prominent in the United States. According to a recent national survey, Chinese is the fastest-growing foreign language in American colleges and universities. CU Denver is uniquely positioned to make use of its location as the cultural, economic and political center of the Rocky Mountain region and of its diverse, well-trained and highly qualified faculty to offer a course of interdisciplinary studies related to China.

The increasing prominence of China in world affairs has made knowledge of Chinese language and cultures a valuable asset in numerous fields. Today, career opportunities abound for Chinese studies graduates in government, international business, banking and financial services, law, medicine, journalism and graduate study in sinology. The breadth of the program's course offerings, coupled with the resources of the faculty, ensures that its graduates will be especially well prepared for any of these professional pursuits.

The program in Chinese studies offers a host of study abroad opportunities throughout the academic year and every summer. CU Denver has on-going programs at the China Agricultural University in Beijing. Study abroad programs of two weeks to one year in length may be arranged, and program faculty can help students enroll in intensive Chinese language programs. Students pursuing the minor in Chinese language and area studies are encouraged to complete the program with a period of residence and study in a Chinese-speaking region.

Requirements for the Minor

The minor requires a total of 21 semester hours. A minimum of 15 semester hours must be taken from Denver campus faculty. All courses must be completed with a grade of C (2.0) or better.

Required Courses

- * CHIN 1000 - China and the Chinese
- CHIN 1010 - Beginning Chinese I

- CHIN 1020 - Beginning Chinese II

Total: 13 Hours

**Note:* CHIN 1000 should be taken toward the beginning of the minor.

Additional Courses

An additional 8 hours of course work should be selected from the following list of courses:

- ANTH 4000 - Special Topics in Anthropology
- CHIN 2110 - Second Year Chinese I
- CHIN 2120 - Second Year Chinese II
- CHIN 3200 - Contemporary Chinese Society and Culture
- FINE 4750 - Arts of China
- GEOG 3160 - Geography of China
- HIST 4420 - Traditional China: China to 1600
- HIST 4421 - Modern China
- PSCI 4186 - East Asia in World Affairs
- PSCI 4615 - Politics and Government of China
- PSCI 4726 - Russian and Chinese Foreign Policy
- PHIL 3666 - Asian Philosophies and Religions
- PHIL 3981 - Chinese Philosophy and Culture
- China-related travel study, taken under the following course numbers:
- ANTH 4995 - Travel Study
- CHIN 3995 - Travel Study
- COMM 4995 - Travel Study
- PSCI 4995 - Travel Study

Total: 8 Hours

Minor Total: 21 Hours

Note: New courses may not appear in the course description section of this catalog. Contact the department for further information.

Communication Minor

Knowledge in any area of study, whether in business, politics, biology or sociology, means little unless it can be communicated effectively. The minor in communication is designed to provide students who are not communication majors with knowledge and skills in communication that are useful in any discipline or profession.

The minor in communication requires 18 semester hours, with 12 hours of required courses and 6 hours of electives.

Requirements

Core Courses

- COMM 1011 - Fundamentals of Communication
- COMM 1021 - Introduction to Media Studies
- COMM 2020 - Communication, Citizenship, and Social Justice
- COMM 1001 - Presentational Speaking
- -OR- COMM 2050 - Business and Professional Speaking

Total: 12 Hours

Elective Courses

In addition to the four courses specified above, students must take two upper-division courses (3000 level or above) to be selected with the aid of the undergraduate advisor in communication.

Total: 6 Hours

Minor Total: 18 Hours

Grade and Residency Requirements for Minors

A grade of C (2.0) or better must be earned in each course completed as part of the minor. No more than 6 of the semester hours for the minor may be transferred from another university.

Computer Science Minor

The Department of Computer Science and Engineering offers a minor in computer science. The requirements for the minor are listed below.

Program Requirements

1. Any undergraduate student currently enrolled in a CU Denver degree program with a major other than computer science and engineering may earn a minor in computer science. This includes students from the College of Engineering and Applied Science, the College of Liberal Arts and Sciences, the Business School, the College of Arts & Media and the School of Public Affairs.

2. The student must complete the following classes with a grade of C- or better:

[MATH 1401 - Calculus I](#)

[MATH 2411 - Calculus II](#)

[CSCI 1410 - Fundamentals of Computing](#)

[CSCI 1411 - Fundamentals of Computing Laboratory](#)

[CSCI 2312 - Intermediate Programming](#)

[CSCI 2421 - Data Structures and Program Design](#)

[CSCI 2511 - Discrete Structures](#)

3. The student must complete (with a C- or better) three additional computer science courses at the 3000-level or higher with the approval of an undergraduate advisor.

Note: Some courses at the 3000-level and above require additional prerequisites. A student must fulfill all prerequisites for the courses he/she selects. See the catalog course descriptions for prerequisite information for each course.

4. All computer science courses 3000 level and above must be taken at the Denver campus.

5. At the time of graduation, the student must have a CU Denver cumulative GPA of 2.0 and must have a 2.0 GPA for the eight classes taken for the minor.

6. The student must file a minor declaration form with the Engineering Student Services office in North Classroom, 2605. For more information or an advising appointment, contact the Department of Computer Science and Engineering in the Lawrence Street Center, 8th floor, or by phone at 303-315-1411.

Creative Writing Minor

The creative writing minor gives students the opportunity to complement their area of major study with experience writing and reading poetry or fiction.

Students minoring in creative writing must complete a total of 15 hours. None of the required courses may be taken pass/fail. Only courses completed with a grade of *C* (2.0) or better may be counted toward the minor. All upper-division courses must be taken with CU Denver English faculty. Students should take ENGL 1020 before beginning the minor. Courses in a minor cannot be counted toward the English major or English Writing major; consult an English advisor for substitutions.

Courses

Required Courses

- ENGL 2154 - Introduction to Creative Writing
- ENGL 2450 - Introduction to Literature
- ENGL 3020 - Poetry Workshop
- -OR- ENGL 3050 - Fiction Workshop

Total: 9 Hours

Area Requirements

Choose one corresponding poetry or fiction course:

- ENGL 4025 - Advanced Poetry Workshop
- ENGL 4055 - Advanced Fiction Workshop
- ENGL 3_____ Writing Workshop (3000-level not previously taken)

Total: 3 Hours

Elective in Genre of Specialization

Poetry

Students who have taken ENGL 3020, choose one from the following:

- ENGL 4160 - Poetics
- ENGL 4166 - History of American Poetry
- ENGL 4320 - History of Poetry in English
- ENGL 4800 - Special Topics in Creative Writing (poetry emphasis)

Fiction

Students who have taken ENGL 3050, choose one from the following:

- ENGL 4200 - History of the English Novel I
- ENGL 4210 - History of the English Novel II
- ENGL 4230 - The American Novel
- ENGL 4236 - The American Short Story
- ENGL 4800 - Special Topics in Creative Writing (fiction emphasis)

Total: 3 Hours

Minor Total: 15 Hours

Criminal Justice Minor

Program Requirements

A minor in criminal justice requires 18 semester hours of course work.

Required Courses:

- CRJU 1000 - Introduction to Criminal Justice
- CRJU 2041 - Crime Theory and Causes

Plus at least one of the following:

- CRJU 4042 - Corrections
- CRJU 4043 - Law Enforcement
- CRJU 4044 - Courts and Judicial Process

One to three additional elective courses in criminal justice or ancillary fields.

A maximum of 9 transfer credits may be applied to the minor. Electives must be taken from outside the student's major. No lower division courses may be counted for the minor.

Demography Minor

Demography is the scientific study of human populations. It is an interdisciplinary field that examines the causes and consequences of health and mortality, population aging, migration, fertility, maternal and child health, interactions between human populations and the environment and population growth and decline.

Students working toward a minor in demography within the Department of Health and Behavioral Sciences (HBS) will acquire focused training in theories and methods of demography. The minor will help students develop important skills in critical thinking and quantitative reasoning, and will prepare them for graduate-level training in demography or related fields and for jobs requiring an understanding of population dynamics. Demographers are frequently employed in occupations including academia, risk assessment, marketing, consulting, non-profits and various local, state and federal government agencies.

For more information, email demographyminor@ucdenver.edu.

Program Requirements for the Minor

All students must complete a **minimum of 18 credits drawn from the approved course list** (see below). Although students may count courses taken for other majors or minors toward the requirements for the demography minor, they must still take at least **18 credits that count exclusively toward the demography minor**.

All undergraduate CU Denver students are eligible to take this minor, and must achieve a C (2.0) or above in all the courses for them to be counted toward the minor. A minimum of 15 credit hours, at least 12 of which must be upper division courses, must be taken in residence at CU Denver.

Note: Students should check for prerequisites when enrolling in courses.

Survey Courses

Students must choose at least one of the following; both may be counted toward the minor:

- PBHL 2051 - Introduction To Population Studies
- SOCY 4220 - Population Change and Analysis

Quantitative Methods

Must choose at least one of the following; additional courses may not count toward the minor:

- MATH 2830 - Introductory Statistics
- HBSC 3001 - Introduction to Epidemiology
- PBHL 3001 - Introduction to Epidemiology

Strong Demographic Themes

Must choose at least one of the following; more may count toward the minor:

- ANTH 4260 - Human Reproductive Ecology
- PBHL 3071 - Global Topics In Sexual and Reproductive Health
- PBHL 4020 - Global Health: Comparative Public Health Systems
- PBHL 4040 - Social Determinants of Health
- SOCY 3520 - Topics in Sociology (when offered as Medical Sociology topic)
- SOCY 4440 - Social Inequality

Other Electives

These courses may be used to fulfill remaining credits:

- BIOL 3412 - Fundamentals of Applied Ecology
- ECON 3100 - Economics of Race and Gender
- ECON 3400 - Economics of Sex and Drugs
- GEOG 1602 - Introduction to Urban Studies
- GEOG 3300 - Population and Resources in the World Environment
- GEOG 3501 - Geography of Health
- PBHL 3002 - Ethnicity, Health and Social Justice
- PBHL 3031 - Health, Human Biology and Behavior
- PBHL 3200 - Human Migration: Nomads, Sojourners, and Settlers
- -OR- ANTH 3200 - Human Migration: Nomads, Sojourners, and Settlers
- PBHL 4200 - The Global HIV/AIDS Epidemic
- -OR- HBSC 5200 - The Global HIV/AIDS Epidemic
- PSCI 4545 - Immigration Politics
- SOCY 3700 - Sociology of the Family
- SOCY 4772 - Advanced Topics in Sociology (when offered as Crime and Inequality Over the Life Course topic)

Total: 18 Hours

Digital Design Minor

Digital design integrates aesthetic, creative and critical thought with expertise in advanced electronic media. Configured as an interdisciplinary arts and design laboratory, digital design offers a hands-on education combining new art technologies and design concepts in a concentrated theoretical framework that promotes an understanding of the cultural impact and uses of digital technologies. Through this interdisciplinary approach combining arts and communication, digital design strives to produce artists and designers who will use technology in innovative ways in both commercial and artistic spheres.

Students who are applying for an entrance into the digital design minor are required to submit a written statement, a designed portfolio, and transcript(s) from CU Denver and all previous post-secondary educational institutions. The digital design course sequence starts in the fall semester. Students who meet the following requirements can apply. Upon acceptance students can register for upper-division digital design courses.

ELIGIBILITY

University of Colorado Denver Students

- The student has completed, or is in the process of completing, the following foundation studio courses: FINE 2405 and FINE 2415 (both courses are only offered fall semester).
- A minimum cumulative fine arts/art history GPA of 2.75.

Transfer Students

- The student has completed and is transferring a minimum of 24 credit hours from a previous institution.
- The student has completed, or is in the process of completing, the equivalents of the following foundation studio courses: FINE 2405 and FINE 2415.
- A minimum cumulative fine arts/art history GPA of 2.75.

APPLICATION PORTFOLIO REQUIREMENTS

To properly prepare your application, refer to <http://designucd.com/index.php/portfolio/> for detailed instructions. Applications are due by 5 p.m. on November 1 or on the following business day if the deadline falls on a weekend or holiday. Students should register and create a page two weeks prior to uploading so that they understand how to format and prepare work.

Applications are only accepted online and must be formatted to the specifications listed on <http://designucd.com/index.php/portfolio/>. The portfolio samples should consist of images (JPGs) and embedded video. Written work should be integrated into the submission. **It is VERY important for students to visit the submission page early and begin uploads one week before the due date.** Late submissions due to technical difficulties on the part of the applicant will NOT be accepted.

Portfolio of Images

- The portfolio must include 10-12 electronic examples of your creative work. At least four portfolio works must be taken from Intro to Digital Design or Typography. Additional works may comprise design, drawing, sculpture, photography, installation, painting, video, etc.
- All artwork must include a corresponding brief explanation of the concept and creative process behind each piece.

GPA

- The applicant must compile a list of all fine arts/art history courses taken, categorized by each college/university attended.
- The applicant must clearly calculate his or her fine arts/art history GPA.

Written Statement

The written statement should address all of the following in a clear, detailed and accurate essay no more than two pages in length. The content of the answers has significant impact on the committee's decision whether to offer admission to the digital design minor.

- The applicant describes why he or she would like to be a designer and what goals and expectations the applicant has regarding design as a career. Include any special considerations that would be useful for the committee in making a decision, such as a high GPA, art-related extracurricular activities or relevant professional experience.
- The applicant reflects on the artists and designers who have influenced his or her artistic interests. Use at least two examples of each artist's work, discussing both form and content.
- The applicant identifies his or her creative strengths and areas that need further development. How will the applicant best utilize strengths? How does the applicant plan to resolve any deficiencies in work and performance?

Course Transcripts

These may be official or unofficial transcripts from CU Denver and previous post-secondary institutions.

The Evaluation Process

- A committee of design faculty members reviews the application packet. The decision for admission into the digital design minor is based on the portfolio images, written statement and grades/GPA. For acceptance, the committee looks for a high level of skill and sophistication in studio, written and presentation skills.
- If not admitted into the digital design minor, a student has the choice of attempting the review process again the following year or selecting another minor. Students not admitted into the digital design minor are encouraged to schedule a meeting with a

digital design faculty member to learn of ways to improve portfolios for future submissions.

The application is evaluated on the following criteria:

- **Presentation** - Is the portfolio well crafted and well organized in content and presentation? Are all of the required components included?
- **Visual Literacy** - Does the portfolio reflect sensitivity to design concepts and visual logic, and does it demonstrate fundamental understanding of composition? Does the work communicate effectively?
- **Technical Skill** - Does the portfolio reflect a strong knowledge of tools and materials and a strong aptitude for digital design skills?
- **Conceptual Skills** - Do the portfolio and written statement demonstrate analytical thinking as it applies to visual art and design? Is there a developing conceptual exploration of the digital medium?
- **Written Statement** - Does the statement reflect an understanding of digital design and explain your goals as a student in the digital design minor? Are potential strengths and weaknesses addressed clearly?
- **Academic Performance** - Do your grades reflect a commitment to learning and growth?

Questions

Please contact CAMadvising@ucdenver.edu for minor and portfolio information, or contact digital design area head Brian DeLevie at brian.delevie@ucdenver.edu.

Those applying to the minor (and not the digital design emphasis) are not required to complete the following courses or their college-level equivalents:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design

However, students must show equivalent studio work in their application portfolios.

Additional Information about the Minor

All courses for the minor must be taken at CU Denver unless approved otherwise by the digital design faculty advisor. Each course must be completed with a grade of C (2.0) or better. Students may use up to 6 semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to major requirements. Consult an advisor in the College of Arts & Media at CAMadvising@ucdenver.edu for more information.

Minor Course Requirements

- FINE 2405 - Introduction to Digital Design
- FINE 2415 - Typography Studio
- FINE 3414 - Motion Design I

- FINE 3415 - Design Studio I
- FINE 3424 - Interactive Media
- FINE 3434 - 3D Motion Design
- FINE 4632 - Media History and Aesthetics

Total: 21 Hours

Economics Minor

Students minoring in economics must complete a minimum of 15 semester hours in economics. All course work must be completed at CU Denver or the Department of Economics reserves the right to test the student's competence in the material covered. No grade below C- will be counted toward the minor requirements.

Courses

- ECON 2012 - Principles of Economics: Macroeconomics
 - ECON 2022 - Principles of Economics: Microeconomics
- plus—
Three upper-division electives in economics: **9 semester hours**
(ECON 3100 - Economics of Race and Gender is acceptable)

Total: 15 Hours

At least two upper-division courses must not overlap with courses required in the student's major program.

Environmental Sciences Minor

The environmental sciences minor offers students exposure to the breadth of environmental issues. Students may emphasize the natural/physical sciences, the social sciences and humanities or structure their own mixed emphasis.

Program Requirements

Lecture/Laboratory Courses

Choose two lecture/laboratory courses (see Note 2):

- BIOL 2051 - General Biology I
- *and* BIOL 2071 - General Biology Laboratory I
- BIOL 2061 - General Biology II
- *and* BIOL 2081 - General Biology Laboratory II
- CHEM 2031 - General Chemistry I
- *and* CHEM 2038 - General Chemistry Laboratory I
- CHEM 2061 - General Chemistry II
- *and* CHEM 2068 - General Chemistry Laboratory II
- ENVS 1042 - Introduction to Environmental Sciences
- GEOL 1072 - Physical Geology: Surface Processes
- GEOL 1082 - Physical Geology: Internal Processes
- PHYS 2010 - College Physics I
- *and* PHYS 2030 - College Physics Lab I
- PHYS 2020 - College Physics II
- *and* PHYS 2040 - College Physics Lab II

Total: 8-10 Hours

Upper-division Courses

Choose three upper-division courses outside of the student's major discipline from the following list (see Notes 5 and 6):

- ANTH 4010 - Medical Anthropology: Global Health
- BIOL 3411 - Principles of Ecology
- CHEM 4700 - Environmental Chemistry
(see note 4)
- ECON 4540 - Environmental Economics
- ENVS 3082 - Energy and the Environment
- -OR- PHYS 3082 - Energy and the Environment
- GEOG 3232 - Weather and Climate
- GEOG 3240 - Colorado Climates
- GEOG 4020 - Earth Environments and Human Impacts
- GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 4080 - Introduction to GIS

- GEOG 4090 - Environmental Modeling with Geographic Information Systems
- GEOG 4220 - Environmental Impact Assessment
- GEOG 4230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 4240 - Geomorphology
- GEOG 4265 - Sustainability in Resources Management
- GEOG 4270 - Glacial Geomorphology
- GEOG 4335 - Contemporary Environmental Issues
- GEOG 4350 - Environment and Society in the American Past
- GEOG 4420 - The Politics of Nature
- GEOL 4030 - Environmental Geology
- PSCI 4354 - Environmental Politics

Total: 9 Hours

Minor Total: 17-19 Hours

Notes:

1. All work submitted for an environmental sciences minor must have a grade of C (2.0) or above.
2. The lecture/laboratory sequence can be part of the requirements for the major, but not in the student's major department (i.e., a biology major cannot use the general biology sequence, but could use the general chemistry sequence, which is also required for the biology major).
3. Students must take a minimum of 9 hours of the upper-division courses at the Downtown Campus.
4. If the student plans to go on to the MS in environmental sciences program, he/she should choose courses other than CHEM 4700. This is a core course in the MS in environmental sciences program.
5. Many of the upper-division courses have prerequisites; the student must check the catalog for prerequisite requirements for these courses.
6. The four upper-division elective courses for the environmental sciences minor cannot be from the student's major discipline, even if the particular course is not counted toward the major.

Ethics Minor

A total of 15 semester hours is required for an ethics minor, with a minimum grade of C (2.0) in each course.

Required Courses

- PHIL 1020 - Introduction to Ethics and Society: The Person and the Community

Choose four:

- PHIL 3150 - History of Ethics
- PHIL 3200 - Social and Political Philosophy
- PHIL 3250 - Business Ethics
- PHIL 3280 - War and Morality
- PHIL 3500 - Ideology and Culture: Racism and Sexism
- PHIL 3939 - Internship
- PHIL 4150 - Twentieth Century Ethics
- PHIL 4242 - Bioethics
- PHIL 4250 - Environmental Ethics

Minor Total: 15 Hours

For those students who major in philosophy and minor in ethics, no course can satisfy the requirements for both. For example, if a student takes PHIL 4150, Twentieth Century Ethics, it cannot satisfy the requirement in the major for a course in 19th or 20th century philosophy.

Ethnic Studies Minor

Requirements for the Minor

The minor in ethnic studies offers students the opportunity to enhance and broaden the body of knowledge acquired in their chosen majors and to apply it in a variety of careers involving intercultural relations. Students are required to complete 18 semester hours (6 courses) in ethnic studies with a grade of *C* or better. These hours are to be taken with CU Denver faculty (any exception needs to be approved by the ethnic studies advisor). At least 9 of the required 18 hours must be in courses numbered 3000 or above.

The 18 hours required for the minor must be distributed as follows:

Core Courses

- ETST 2000 - Introduction to Ethnic Studies

Total: 3 Hours

Additional Courses

Select four upper- or lower-division ETST courses from the following four focal U.S. racial/ethnic groups

Asian-Americans
African-Americans
American Indians
Chicanos/as and Latinos/as

Total: 12 Hours

Elective

ETST elective course of your choice.

Total: 3 Hours

Minor Total: 18 Hours

Film Studies Minor

The film studies minor offers students the opportunity to gain an informed understanding of the sophisticated medium of film, its language and history. Courses cover critical writing about cinema, creative screenwriting, the evolution of Hollywood movies, international cinema and film in its cultural context. The film studies minor makes a valuable complement to a range of undergraduate majors.

Students must complete a total of 15 hours for the film studies minor. None of the required 15 hours may be taken pass/fail. Only courses completed with a grade of C (2.0) or better may be counted toward the minor. A minimum of 9 hours must be taken with CU Denver faculty. Students are also advised to fulfill the liberal arts and sciences core curriculum writing requirements before enrolling in upper-division topics in film courses. No more than two online film studies courses can be counted toward the minor. Courses in a minor cannot be counted toward the English major or English Writing major; consult an English advisor for substitutions. [Courses marked by an asterisk are repeatable if taken as a different genre/director/topic.]

Courses

Required Courses

- ENGL 2250 - Introduction to Film
- ENGL 2450 - Introduction to Literature
- ENGL 3070 - Film History I
- -OR- ENGL 3080 - Film History II

Total: 9 Hours

Electives

Choose two:

- ENGL 2415 - Introduction to Movie Writing
- ENGL 3070 - Film History I
- -OR- ENGL 3080 - Film History II
- * ENGL 3075 - Film Genres
- * ENGL 3085 - Film Directors
- ENGL 3200 - From Literature to Film
- * ENGL 3300 - Topics in Film
- ENGL 4420 - Film Theory and Criticism
- * ENGL 4770 - Topics in English: Film and Literature (film topics only)

Total: 6 Hours

Total: 15 Hours

French Minor

Students minoring in French must complete 15 semester hours of upper-division French courses (courses numbered 3000 and above). The minor in French must include at least one language skills class, chosen from the following:

Required Courses

Choose one:

- FREN 3010 - French Phonetics and Pronunciation
- FREN 3020 - Oral Practice
- FREN 3050 - Advanced Grammar and Composition
- FREN 3060 - Advanced French Language Skills

Total: 3 Hours

Electives

In addition, students minoring in French must complete four additional upper-division French courses

Total: 12 Hours

Minor Total: 15 Hours

Geography Minor

Students must complete 15 semester hours in geography, including at least 6 semester hours of upper-division courses. Students must achieve a grade of *C* (2.0) or above on required courses. At least 9 semester hours of upper-division geography courses must be completed at CU Denver.

Geology Minor

At least two of the upper-division requirements must be completed at CU Denver. Transfer students who have earned the equivalent of all these courses elsewhere must complete a minimum of two of the required upper-division courses at CU Denver. No grade below a C (2.0) will be counted toward the minor requirements.

Required Courses

- GEOL 1072 - Physical Geology: Surface Processes
- GEOL 1082 - Physical Geology: Internal Processes

Choose at least two of the following courses:

- GEOL 3011 - Mineralogy
- GEOL 3032 - Geology of Colorado
- GEOL 3421 - Sedimentation and Stratigraphy
- GEOL 4020 - Earth Environments and Human Impacts
- GEOL 4030 - Environmental Geology
- GEOL 4240 - Geomorphology
- GEOL 4270 - Glacial Geomorphology
- GEOL 4280 - Environmental Hydrology

Minor Total: 15-16 Hours

NOTE: Any upper division courses applied to the geography major, option 5 cannot also be applied to the geology minor.

German Studies Minor

The German Studies minor uses an interdisciplinary approach to learning language that also provides the opportunity to discover the culture of the speakers of German, which can include course work from outside the department. Students improve their German language skills as well as develop cultural knowledge in fields such as history, political science, philosophy, the arts and any of the multiple fields to which the German culture has so richly contributed.

Admission and Grade Requirements

Students minoring in German Studies must maintain a minimum overall GPA of 2.3, and a GPA of 2.5 in courses applied to the German Studies minor. The minimum grade acceptable in any course applied to the German Studies minor is a *C* (2.0). No courses taken on a pass/fail basis may be credited toward the German Studies minor.

Course Substitutions

With prior consent from a CU Denver German faculty advisor, students may apply substitute course work to fulfill the required areas of study. This would include, for example, courses taken outside the department, transfer credit, study abroad course work, etc. Please consult with a CU Denver German faculty advisor to receive permission for course substitution. GRMN 1010 and GRMN 1020 can NOT be applied toward this minor.

Residency Requirement

The German Studies minor requires 6 semester hours of upper-division course work. A minimum of 12 semester hours must be taken from German faculty at CU Denver. Courses taken at other institutions while a student is enrolled at CU Denver may be applied to the minor only with departmental approval before enrollment in those courses.

Students who have completed course work through an approved exchange program must also complete a residency requirement of a minimum of 6 credits of upper-division German courses. This residency requirement must include at least 3 semester hours of language skills courses at CU Denver.

Advising

Upon declaring a minor in German Studies, each student will be assigned to a faculty advisor with whom the student should consult at least once per semester thereafter. It is especially important that students have their transcripts reviewed by their advisor before enrolling in their final 30 credit hours at CU Denver. Failure to do so may result in delay of graduation.

Course Requirements for the Minor

Students must complete a minimum of 18 semester credit hours of course work pertinent to the study of German Language and Culture. No portion of these 18 credits may be applied to satisfy the requirement of any specific program outside the German Studies minor (such as satisfying core curriculum requirements) other than the total number of credits required for an undergraduate degree.

Required Courses in Language Proficiency

Students must complete at least 6 semester credits of upper division German skills courses. Skills courses are those taught in German with the goal of improving the student's abilities in spoken and written German. Any courses taught in German at the 3000 level or higher may be applied toward language proficiency (example courses: GRMN 3030, GRMN 3050, GRMN 3060). Only courses taught in German may apply toward the language proficiency minimum.

Total: 6 Hours

Required Courses in German Culture

Students must complete a minimum of 3 credit hours pertaining to German culture. Culture courses are those whose primary content focuses on the aspects of German society, current and/or historical issues. Students may complete this component in any language of instruction. (Examples of such courses include GRMN 1000, GRMN 3200, and may include courses outside the department.)

Total: 3 Hours

Electives

In addition to the minimum 9 credits of required skills and culture courses, students must complete at least 9 additional credits of elective course work pertinent to the study of German language and/or culture. These credits may be chosen from any course offerings with a GRMN prefix (such as GRMN 3200) and may also include GRMN 1000, GRMN 2110 and GRMN 2150 with permission from a German faculty advisor. Please note that GRMN 1010 and GRMN 1020 can NOT be applied toward the German minor.

Students may apply up to 6 semester credits toward the German minor from UCD courses outside the department provided that the content of the course work is pertinent to the study of German language and/or culture (such as courses in history, political science, philosophy, etc.). Students must receive prior approval from a German faculty advisor to apply credits from outside the department toward the German minor.

Total: 9 Hours

Minor Total: 18 Hours

Study Abroad

Students learning German are highly encouraged to study abroad in a German-speaking country. Please consult a faculty member in German about including study abroad in your curriculum and about the application of course work completed abroad as it applies to your program.

German Language Certificate

Students enrolled in a degree program, and who complete the Certificate in Applied German Language Skills, satisfy the requirements for a German Studies minor and can earn both upon graduation.

Health Humanities Minor

Program Requirements

Students declaring a minor in HEHM must have at least a 2.5 overall GPA. No grade lower than a C will count towards the minor. At least 12 credits for the minor must be taken with CU Denver faculty. Students may count ONE relevant transfer course toward their elective requirements for the minor.

Required Course

This is a multidisciplinary course, introducing students to the ways various disciplines approach health and medicine. As part of their introduction, students will be required to attend three events at the Anschutz Medical Campus – such as lectures in the “Arts and Humanities” series, Mini Med School, or special programming. We recommend that students take HEHM 3100 before or concurrently with other courses for the minor.

HEHM: Introduction to Health Humanities 3 credits

Electives

Electives include the courses on the back of this sheet (the list is not exhaustive). One elective course can be a service learning course or independent study approved by an HEHM advisor.

Electives must come from at least two different disciplines and must be at the 3000 or 4000 level.

- ANTH 4600 - Medical Anthropology
- COMM 4500 - Health Communication
- ETST 3002 - Ethnicity, Health and Social Justice
- GEOG 3501 - Geography of Health
- GEOG 4235 - GIS Applications in the Health Sciences
- GEOG 4710 - Disasters, Climate Change, and Health
- HIST 4307 - History of Sexuality
- HIST 4503 - Topics in History of Science
- PBHL 3030 - Health Policy
- PBHL 3070 - Perspectives in Global Health
- PBHL 3041 - Health, Culture and Society
- PBHL 4040 - Social Determinants of Health
- PHIL 4242 - Bioethics
- PSCI 4330 - U.S. Health Policy
- PSYC 3262 - Health Psychology
- SOCY 3440 - Medical Sociology

Total: 9 Hours

Capstone

Certain courses, designated with asterisks below, are appropriate for a capstone course. They incorporate substantial original writing or research projects designed to promote broad reflection about the role of culture, society, and ethics in medicine. Students should choose asterisk courses at the culmination of their minor course work.

- COMM 4550 - Rhetorics of Medicine & Health
- ENGL 4290 - Rhetoric and the Body
- HIST 4345 - Gender, Science, and Medicine: 1600 to the Present
- HIST 4346 - Medicine and Society: the Ancients to the Present

Total: 3 Hours

Minor Total: 15 Hours

History Minor

Students interested in a minor in history are required to complete 18 hours of course work. At least 12 semester hours must be completed at CU Denver. No grade below a *C* (2.0) will count toward the minor.

Students minoring in history must take at least 9 credit hours of upper division (3000- and 4000-level) courses.

Course Requirements

Required Course

- HIST 3031 - Theory and Practice of History: An Introduction to the Major

Total: 3 Hours

Distribution Requirement

A minimum of 3 semester hours must be taken in each of the following areas: United States, Europe and World.

Total: 9 Hours

Electives

Choose at least 6 hours of elective upper-division history credit.

Total: 6 Hours

Minor Total: 18 Hours

Law Studies Minor

Program Requirements

A total of 18 semester hours must be completed for the law studies minor. The courses must be taken in residence at CU Denver. A minimum grade of *C* is required in each course and students must maintain a GPA of 3.0 in courses taken toward the minor. Every course taken for the minor must be upper division. Courses taken for the minor cannot serve to fulfill requirements of the undergraduate core, and students should check with their major department to determine whether courses counted toward the law studies minor can fulfill major requirements. To apply for this minor, students must complete and submit a major/minor change declaration form to the CLAS Advising Office in North Classroom, 4002.

Required Courses

- HUMN 3250 - Introduction to Law Studies
(offered every fall)
- PHIL 4260 - Philosophy of Law
(offered every spring)
- COMM 4680 - Mass Media Law And Policy
(offered fall and spring)
- COMM 4750 - Legal Reasoning and Writing
(offered once a year)

Total: 12 Hours

Electives

Choose two:

- BLAW 3000 - Legal and Ethical Environments of Business I
- COMM 4681 - Communication Issues in Trial Court Practices and Processes
- COMM 4683 - Media in the Courtroom
- COMM 4710 - Topics in Communication
(when offered as the topic, "Communication in Jury Decision Making")
- CRJU 4430 - Law and Society
- PSCI 4494 - Judicial Politics
- PSCI 4427 - Law, Politics and Justice
- PSYC 3505 - Psychology and the Law

Total: 6 Hours

Minor Total: 18 Hours

The law studies program also recommends a course in informal logic to aid in preparation for the LSAT (e.g., PHIL 2441).

Literature Minor

This program is designed for students who are interested in the study of English literature but who have elected to major in another area. The recommended series of courses allows students to become acquainted with some of the methods of literary study and with a number of the most important literary works.

The literature minor allows students to complement their area of major study with systematic experience in literature.

Students minoring in literature must complete a total of 15 hours (excluding ENGL 1010, 1020, 2030). None of the required 15 hours may be taken pass/fail. Only courses completed with a grade of C (2.0) or better may be counted toward the minor. A minimum of 9 upper-division hours of work in the minor must be taken with CU Denver English faculty. Courses in a minor cannot be counted toward the English major or English Writing major; consult an English advisor for substitutions.

Courses

Required Courses

- ENGL 2450 - Introduction to Literature
- ENGL 3001 - Critical Writing

Total: 6 Hours

Area Requirements

Any three upper division courses listed for the English major, Literature Option area requirements.

Total: 9 Hours

Minor Total: 15 Hours

Mathematics Minor

Program Requirements

- MATH 1401 - Calculus I
 - MATH 2411 - Calculus II
 - MATH 2421 - Calculus III
- Three additional upper-division math courses (3 or more semester hours each, excluding MATH 3040) — **9 semester hours**

Minor Total: 21 Hours

Minimum of 21 semester hours with a *C* average.

At least 6 of the upper-division semester hours must be taken at CU Denver. Students must receive a grade of *C* or better in order for the course to be counted toward the minor requirements.

Note: Engineering courses not cross-listed with a math course will not satisfy this requirement.

Philosophy Minor

A total of 15 semester hours is required for the minor in philosophy, with a minimum grade of *C* (2.0) in each course.

Program Requirements

Required Courses:

- PHIL 1012 - Introduction to Philosophy: Relationship of the Individual to the World
 - PHIL 3002 - Ancient Greek Philosophy
 - PHIL 3022 - Modern Philosophy
- (It is recommended but not required that PHIL 3002 be taken before PHIL 3022.)

Total: 9 Hours

Electives

Choose two additional philosophy courses, one of which must be at the upper-division level.

Total: 6 Hours

Minor Total: 15 Hours

Religious studies courses cannot be used to fulfill the requirements for the minor.

Photography Minor

Students in the photography minor develop technical skills in traditional and digital photographic practice while refining creative and conceptual approaches to the medium. The photography curriculum emphasizes individual artistic development while integrating the history of photography as well as contemporary work and critical theory. Through an exploration of a variety of photographic methods, students are given the tools to create visually compelling photographs that communicate their artistic ideas.

Students who apply for entrance into the photography minor must submit a written statement, a portfolio of images, and unofficial transcript(s) from CU Denver and all previous post-secondary educational institutions. Students who meet the following requirements and are accepted into the minor will be eligible to register for upper-division photography courses.

ELIGIBILITY

University of Colorado Denver students and transfer students must have a minimum cumulative GPA of 2.75 in fine art and art history courses. In order to apply to the photography minor, students must have completed, or be in the process of completing, the following courses::

- FINE 1150 - Introduction to Darkroom Photography
- FINE 2155 - Introduction to Digital Photography

PORTFOLIO REQUIREMENTS

Students applying to the minor should submit a CD or DVD to the area head of photography, Carol Golemboski, in room 815M of the CU Building. The CD or DVD is due by 5 p.m. on November 1, or on the following business day if the deadline falls on a weekend or holiday. The CD or DVD should include contact information and an email address for notification of the results of the portfolio review. Late submissions will not be accepted.

(NOTE: Portfolio submissions may switch to an online process; please consult Carol Golemboski (carol.golemboski@ucdenver.edu) for details and updates before submitting your portfolio.)

The CD or DVD must include the following:

Portfolio of Images

- The portfolio must include 10 examples of creative work. At least six portfolio images should be photographic (three images from Introduction to Darkroom Photography and three images from Introduction to Digital Photography). Additional examples may be in the form of design, drawing, sculpture, installation, painting and/or video.
- All portfolio images must include a brief explanation of the concept and creative process behind each piece.
- All images should be formatted as JPEGs.

Written Statement

The written statement must address the following in a clear, detailed essay no more than two pages in length.

- The applicant should describe why he or she would like to be in the photography minor and what goals and expectations the applicant has regarding photography as a career. Include any special considerations that would be useful for the committee in making a decision, such as a high GPA, art-related extracurricular activities or relevant professional experience.
- The applicant should reflect on the artists and photographers who have influenced his or her artistic interests. Reference at least two examples of their work, discussing both form and content.
- The applicant should identify his or her creative strengths and areas that need further development.

Course Transcripts

These may be official or unofficial transcripts from CU Denver and previous post-secondary institutions.

The Evaluation Process

- A committee of photography faculty members reviews the portfolio packets. Acceptance into the photography minor is based on the portfolio images, written statement and GPA.
- If not admitted into the photography minor, a student has the choice of attempting the review process again the following year or selecting another minor. Students not admitted into the photography minor are encouraged to schedule a meeting with the area head of photography to learn ways to improve their portfolios for future submissions.

The application is evaluated on the following criteria:

- **Presentation** - The portfolio should be well crafted and well organized in content and presentation.
- **Technical Skill** - The portfolio should demonstrate strong knowledge of the fundamental tools of photography including camera functions, analog film development and printing, and digital imaging, as well as an understanding of design, form, composition and color.
- **Creativity** – The portfolio should demonstrate creative choices in content and aesthetics.
- **Conceptual Skills** - The portfolio and written statements should reflect analytical thinking and conceptual exploration of the photography medium.
- **Written Statement** - The statement should outline academic and artistic goals, addressing any potential strengths and weaknesses.
- **Academic Performance** - The grades must reflect a commitment to learning and growth.

- All required documentation included (images, written statement and transcripts.)

Questions

Please contact CAMadvising@ucdenver.edu for minor and portfolio information, or contact photography area head Carol Golemboski at carol.golemboski@ucdenver.edu

To declare a CAM minor, see the College of Arts & Media's Office of Advising and Student Services in Arts Building, 177.

Additional Information about the Minor

Students may transfer up to 6 semester hours of non-CU Denver courses toward a minor. All other courses must be taken at CU Denver. Each course must be completed with a grade of C (2.0) or better. Students may use up to 6 semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to the major requirements. Consult an advisor in the College of Arts & Media at CAMadvising@ucdenver.edu for more information.

Photography Minor Course Requirements

- FINE 1150 - Introduction to Darkroom Photography
- FINE 2155 - Introduction to Digital Photography
- FINE 3630 - History of Photography

Select three courses from the following:

- FINE 3160 - Color and Studio Lighting
- FINE 3161 - The Silver Fine Print
Note: must be completed before 3171
- FINE 3162 - The Digital Fine Print
Note: must be completed before 3172
- FINE 3171 - Concepts and Processes in Photography
- FINE 3172 - Digital Bookmaking
- FINE 3175 - Creative Commercial Applications

Total: 18 Hours

Physics Minor

A total of 16 semester hours is required for a minor in physics. No grade below a *C* (2.0) can be used to meet the requirements for the minor. At least 6 semester hours of the requirements for the minor must be completed at CU Denver.

Program Requirements

Required Physics Courses

Either of the following two sequences:

- PHYS 2010 - College Physics I
 - PHYS 2020 - College Physics II
 - PHYS 2030 - College Physics Lab I
 - PHYS 2040 - College Physics Lab II
- Sequence Total: 10 Hours**
- OR-
- PHYS 2311 - General Physics I: Calculus-Based
 - PHYS 2321 - General Physics Lab I
 - PHYS 2331 - General Physics II: Calculus-Based
 - PHYS 2341 - General Physics Lab II
- Sequence Total: 10 Hours**

Elective Physics Courses

An additional 6 semester hours of electives: 3 at the 2000 level or above, and 3 at the 3000 level or above.

Total: 6 Hours

Minor Total: 16 Hours

Political Science Minor

A student can earn an undergraduate minor in political science by completing 15 semester hours distributed as shown below. At least 9 of the 15 hours must be taken from CU Denver faculty.

Course Requirements

One lower-division course

- PSCI 1001 - Introduction to Political Science: The Quest for Freedom and Justice
- -OR- PSCI 1101 - American Political System

Four 4000-level courses

Choose one 4000-level course in each of four fields: political theory, American politics, comparative politics and international relations.

Minor Total: 15 Hours

Psychology Minor

Program Requirements

A minor in psychology requires the completion of 15 semester hours with a grade of *C* (2.0) or better in each course, including the following courses:

Two introductory courses:

- PSYC 1000 - Introduction to Psychology I
- PSYC 1005 - Introduction to Psychology II

One of the following courses:

- PSYC 3222 - Principles of Learning and Behavior
- PSYC 4144 - Human Cognition

One of the following courses:

- PSYC 3205 - Human Development I: Child Psychology
- PSYC 3305 - Abnormal Psychology
- PSYC 4415 - Experimental Social Psychology

One capstone (final) course:

- PSYC 4511 - History of Psychology (Prereq: 12 credit hours in psychology)

At least 6 upper-division semester hours must be taken from CU Denver faculty. Further information about the department may be obtained from department advisors or by calling 303-556-8565.

Public Health Minor

To earn a minor in public health, a minimum of 24 semester hours are required, of which 12 must be upper-division and taken from CU Denver faculty. Students must achieve no less than a *C* (2.0) in each course applied toward minor requirements. Up to 6 credit hours completed toward a major or minor in another department may be counted toward the minor in public health.

Program Requirements

Tier 1: General Public Health

All students pursuing the public health minor are **required** to take the following two courses:

- PBHL 2000 - Introduction To Public Health
- PBHL 3010 - Human Sexuality and Public Health

Total: 8 Hours

Tier 2: Public Health Foci

Choose at least two of the following four courses:

- PBHL 2020 - Introduction to Environmental Health
- PBHL 3030 - Health Policy
- PBHL 3070 - Perspectives in Global Health
- PBHL 4040 - Social Determinants of Health

Note: Students may elect to take all four of these courses in lieu of taking two of the elective courses listed in Tier 4 below.

Total: 6 Hours

Tier 3: Biological Background

Choose one of the following three courses:

- ANTH 1303 - Introduction to Biological Anthropology
- BIOL 1550 - Basic Biology: Ecology and the Diversity of Life
- BIOL 1560 - Basic Biology: From Cells to Organisms

Total: 4 Hours

Tier 4: Electives

Choose two of the following courses:

- PBHL 2051 - Introduction To Population Studies
- PBHL 3010 - Human Sexuality and Public Health
- PBHL 3021 - Fundamentals of Health Promotion
- PBHL 3031 - Health, Human Biology and Behavior
- PBHL 3041 - Health, Culture and Society
- PBHL 3071 - Global Topics In Sexual and Reproductive Health
- PBHL 4080 - Global Health Practice
- PBHL 4200 - The Global HIV/AIDS Epidemic
- ANTH 4090 - Political Economy of Drugs
- ANTH 4260 - Human Reproductive Ecology
- COMM 4500 - Health Communication
- COMM 4620 - Health Risk Communication
- GEOG 4235 - GIS Applications in the Health Sciences
- HBSC 4021 - Community Health Assessment
- PSYC 3235 - Human Sexuality
- PSYC 3262 - Health Psychology
- SOCY 3520 - Topics in Sociology
(when Medical Sociology is the topic)

Total: 6 Hours

Total: 24 Hours

Check the department website for additional course offerings.

Religious Studies Minor

Eighteen semester hours, at least 9 of which must be upper division and at least 9 semester hours taken with CU Denver faculty. A minimum cumulative GPA of 2.0 for all CU Denver courses taken in the minor is required, with no individual course grade lower than a C (2.0).

Program Requirements

Required Courses (9 hours):

- RLST 1610 - Introduction to Religious Studies

One course in Western religions chosen from approved list:

- * RLST 2660 - World Religions
- RLST 2700 - The Bible as Literature
- -OR- ENGL 2520 - The Bible as Literature
- RLST 3000 - Judaism, Christianity and Islam: Affinity and Difference
- RLST 3060 - History of Early Christianity
- RLST 3740 - Biblical Traditions: Old Testament
- RLST 3760 - Biblical Studies: New Testament
- RLST 3770 - Archaeological Discoveries Relating to the Bible
- RLST 4070 - Western Religious Thought
- -OR- PHIL 4710 - Western Religious Thought
- RLST 4400 - Differing Concepts of God
- -OR- PHIL 4650 - Differing Concepts of God
- * RLST 4440 - Concepts of the Soul
- -OR- * PHIL 4470 - Concepts of the Soul
- * RLST 4460 - Death and Concepts of Afterlife

* Fulfills requirement for either Eastern or Western religion, but not both simultaneously

One course in Eastern religions chosen from approved list:

- * RLST 2660 - World Religions
 - RLST 3400 - Asian Philosophies and Religions
 - -OR- PHIL 3666 - Asian Philosophies and Religions
 - RLST 3500 - Religions of India
 - RLST 3660 - Chinese Philosophy and Culture
 - -OR- PHIL 3981 - Chinese Philosophy and Culture
 - RLST 4080 - Eastern Religious Thought
 - -OR- PHIL 4720 - Eastern Religious Thought
 - RLST 4160 - Mysticism
 - * RLST 4440 - Concepts of the Soul
 - -OR- * PHIL 4470 - Concepts of the Soul
 - * RLST 4460 - Death and Concepts of Afterlife
- * Fulfills requirement for either Eastern or Western religion, but not both simultaneously

Elective courses (9 hours):

The remaining 9 hours to equal the required 18 hours will count as electives, to be chosen from the full list of courses (below).

Other courses, such as certain special topics, art history courses featuring religious themes and others may count toward the minor at the discretion of the course instructor and the director.

- RLST 1610 - Introduction to Religious Studies
- * RLST 2660 - World Religions
- RLST 2680 - The American Indian Experience
- -OR- ETST 2606 - The American Indian Experience
- RLST 2700 - The Bible as Literature
- -OR- ENGL 2520 - The Bible as Literature
- RLST 3000 - Judaism, Christianity and Islam: Affinity and Difference
- RLST 3060 - History of Early Christianity
- RLST 3080 - Reformation Europe
- RLST 3100 - Islamic Politics and Culture
- -OR- PSCI 4165 - Islamic Politics and Culture
- RLST 3300 - Shamanic Traditions
- RLST 3400 - Asian Philosophies and Religions
- -OR- PHIL 3666 - Asian Philosophies and Religions
- RLST 3500 - Religions of India
- RLST 3660 - Chinese Philosophy and Culture
- -OR- PHIL 3981 - Chinese Philosophy and Culture
- RLST 3720 - Religious Narratives
- -OR- ENGL 3520 - Religious Narratives
- RLST 3740 - Biblical Traditions: Old Testament
- RLST 3760 - Biblical Studies: New Testament
- RLST 3770 - Archaeological Discoveries Relating to the Bible
- RLST 4000 - Religion and Cultural Diversity
- RLST 4010 - Comparative Religious Systems
- RLST 4020 - Sociology of Religion
- -OR- SOCY 4610 - Sociology of Religion
- RLST 4040 - Psychology of Religion
- RLST 4060 - Philosophy of Religion
- -OR- PHIL 4600 - Philosophy of Religion
- RLST 4070 - Western Religious Thought
- -OR- PHIL 4710 - Western Religious Thought
- RLST 4080 - Eastern Religious Thought
- -OR- PHIL 4720 - Eastern Religious Thought
- RLST 4100 - Special Topics in Religion
- RLST 4160 - Mysticism
- RLST 4260 - Kosmos: Theories of the Universe
- -OR- PHIL 3420 - Kosmos: Theories of the Universe
- RLST 4280 - Current Perspectives on the Evolution of Consciousness and Culture

- -OR- GEOL 3100 - Current Perspectives on the Evolution of Consciousness and Culture
- -OR- PHIL 3100 - Current Perspectives on the Evolution of Consciousness and Culture
- RLST 4300 - Myth and Symbol
- RLST 4320 - Spirituality in the Modern World
- RLST 4340 - The Hero's Journey
- RLST 4360 - Freudian and Jungian Perspectives in Dream Analysis
- RLST 4400 - Differing Concepts of God
- -OR- PHIL 4650 - Differing Concepts of God
- RLST 4420 - Goddess Traditions
- -OR- WGST 4420 - Goddess Traditions
- * RLST 4440 - Concepts of the Soul
- -OR- * PHIL 4470 - Concepts of the Soul
- * RLST 4460 - Death and Concepts of Afterlife
- RLST 4480 - Perspectives on Good and Evil
- -OR- PHIL 4480 - Perspectives on Good and Evil
- RLST 4500 - Religion and Politics
- -OR- PSCI 4057 - Religion and Politics
- RLST 4730 - Whores and Saints: Medieval Women
- -OR- ENGL 4510 - Whores and Saints: Medieval Women
- -OR- WGST 4510 - Whores and Saints: Medieval Women
- RLST 4840 - Independent Study: RLST

Minor Total: 18 Hours

Risk Management and Insurance Minor

Students in other undergraduate schools and colleges at CU Denver wishing to complete the risk management and insurance minor need to complete the following course work.

Required Courses

- FNCE 3000 - Principles of Finance
- FNCE 3500 - Management of Business Capital
- * FNCE 3809 - Introduction to Risk Management
- * FNCE 4809 - Property & Casualty Insurance
- FNCE 3700 - Investment and Portfolio Management **and**
- * FNCE 4909 - Corporate Risk Management
- or-**
- BLAW 3000 - Legal and Ethical Environments of Business I **and**
- * FNCE 4129 - Practical Enterprise Risk Mgmt

Total: 18 hours

*These courses are offered with a fixed tuition rate of \$900 per course (in-state) and \$2,400 per course (out-of-state). The courses are not eligible for COF.

Additional Prerequisites

- ACCT 2200 - Financial Accounting and Financial Statement Analysis
- DSCI 2010 - Business Statistics or a statistics course approved by the Business School
- ECON 2012 - Principles of Economics: Macroeconomics
- ECON 2022 - Principles of Economics: Microeconomics
- ISMG 2050 - Introduction to Business Problem Solving
- MATH 1070 - Algebra for Social Sciences and Business
- MATH 1080 - Polynomial Calculus

Other Requirements for Minor

To declare the RMI minor, students must have a 3.0 GPA, either cumulative or from their last 24 completed semester hours. Students must maintain or exceed a 2.0 GPA to graduate with the minor.

Up to 9 of the 18 semester hours required for the minor may be completed at another institution.

Students must have declared the risk management and insurance minor to register for FNCE 3500, FNCE 3700, FNCE 3809, FNCE 4809, FNCE 4909 and FNCE 4129. Otherwise students will have to petition separately to take each of these courses.

Sculpture Minor

To declare a CAM minor, please see the College of Arts & Media's Office of Advising and Student Services in Arts Building, 177.

Students may transfer up to 6 semester hours of non-CU Denver courses toward a minor. All other courses must be taken at CU Denver. Each course must be completed with a grade of C (2.0) or better. Students may use up to 6 semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to the major requirements. Consult an advisor in the College of Arts & Media at CAMadvising@ucdenver.edu for more information.

Program Requirements

- FINE 1500 - Three-Dimensional Design
- FINE 2500 - Bronze Casting and Metal Sculpture
- FINE 2510 - Wood and Metal Sculpture
- _____ - Art History Elective (3 semester hours)

Select three courses from the following:

- FINE 3500 - Modeling and Casting the Figure
- FINE 3510 - Installation Art
- FINE 4500 - Kinetic Sculpture
- FINE 4510 - Advanced Sculpture

Total: 21 Hours

Social Justice Minor

Requirements for the Minor

The minor consists of 18 semester hours, structured as follows:

- A required introductory class (with either a social science or humanities focus); see below.
- An experiential learning component of 3 semester hours.
- Upper-division course work to be determined by individual students in consultation with the social justice minor director. At least two disciplines must be represented.
- A 3-semester-hour capstone seminar that will provide opportunity for further reflection on the experiential learning projects and student group projects.

Required course

Choose one:

- SJUS 2000 - Democratic Participation and Social Justice
- SJUS 2010 - Social Justice: Theories, Narratives, and Technologies

Total: 3 Hours

Internship

A 3-semester-hour internship in any discipline of the social sciences or humanities, involving community work and including a reflective component and public dissemination or report.

Total: 3 Hours

Upper-Division Courses

Choose three (below is a sample list of upper-division courses, but other courses may be considered):

- ANTH 3142 - Cultural Diversity in the Modern World
- ANTH 4070 - Culture of Development and Globalization
- COMM 2000 - Persuasion
- COMM 4022 - Critical Analysis of Communication
- COMM 4260 - Communication and Conflict
- ENGL 3795 - Race and Ethnicity in American Literature
- ENGL 4280 - Proposal and Grant Writing
- ETST 3108 - Chicano/a and Latino/a History
- ETST 3274 - Power, Poverty, Culture
- ETST 3396 - History of the American Indian
- ETST 3704 - Culture, Racism and Alienation

- GEOG 3411 - Globalization and Regional Development
- GEOG 4335 - Contemporary Environmental Issues
- GEOG 4640 - Urban Geography: Denver and the U.S.
- HBSC 3041 - Health, Culture and Society
- HBSC 4021 - Community Health Assessment
- HIST 3345 - Immigration and Ethnicity in American History
- HIST 4217 - Consumer Culture
- HIST 4219 - Depression, Affluence and Anxiety: U.S. History, 1929 to the Present
- PHIL 3200 - Social and Political Philosophy
- PHIL 3280 - War and Morality
- PHIL 3500 - Ideology and Culture: Racism and Sexism
- PHIL 4920 - Philosophy of Media and Technology
- -OR- PHIL 5920 - Philosophy of Media and Technology
- PSCI 3034 - Race, Gender, Law and Public Policy
- PSCI 4025 - Local Governance and Globalization
- PSCI 4207 - Theories of Social and Political Change
- RLST 4000 - Religion and Cultural Diversity
- SOCY 3001 - Urban Sociology
- SOCY 3030 - Social Change
- SOCY 4440 - Social Inequality

Total: 9 Hours

Capstone

Total: 3 Hours

Minor Total: 18 Hours

Sociology Minor

For an undergraduate minor in sociology, a minimum of 15 semester hours in sociology must be completed with a grade of *C* or better. Nine of these hours must be taken from CU Denver faculty.

Course Requirements

Required Courses

- SOCY 1001 - Introduction to Sociology
- SOCY 3150 - History of Sociological Theory

Total: 6 Hours

Electives

Nine hours of sociology elective courses, completed with a grade of *C* or better.

Total: 9 Hours

Minor Total: 15 Hours

Spanish Minor

Students minoring in Spanish for the BA degree must complete 15 semester hours of upper-division Spanish courses (courses numbered 3000 and higher). All course work must be taught in Spanish.

The minor in Spanish must include at least one culture and civilization class, chosen from the following:

Program Requirements

Required Courses

Choose one:

- SPAN 3070 - Bilingual Communities: Spanish as a Language of Contact
- SPAN 3212 - Spanish American Culture and Civilization
- SPAN 3213 - Contemporary Latin American Culture and Institutions
- SPAN 3221 - Culture and Civilization of Spain I
- SPAN 3222 - Culture and Civilization of Spain II
- SPAN 3223 - Contemporary Spanish Culture and Institutions
- SPAN 3230 - Ibero-American Cultures through Film
- SPAN 4230 - Modern Culture of Spain through Film and Narrative

Total: 3 Hours

Electives

In addition, students minoring in Spanish must complete four additional upper-division Spanish courses.

Total: 12 Hours

Minor Total: 15 Hours

Studio Art Minor

To declare a CAM minor, please see the College of Arts & Media's Office of Advising and Student Services in Arts Building, 177.

Students may transfer up to 6 semester hours of non-CU Denver courses toward a minor. All other courses must be taken at CU Denver. Each course must be completed with a grade of C (2.0) or better. Students may use up to 6 semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to the major requirements. Consult an advisor in the College of Arts & Media at CAMadvising@ucdenver.edu for more information.

Program Requirements

Select two courses from the following:

- FINE 1100 - Drawing I
- FINE 1150 - Introduction to Darkroom Photography
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2015 - Intermedia Foundations
- FINE 2200 - Painting I
- FINE 3015 - Interdisciplinary Practices
 - _____ - Art History Elective (3 semester hours)
 - _____ - Studio Arts Electives (6 semester hours)
 - _____ - Upper-division Studio Arts Elective (3 semester hours)

Total: 18 Hours

Sustainability Minor

The sustainability minor is interdisciplinary, drawing on the expertise across CLAS departments: anthropology, biology, chemistry, communication, economics, environmental sciences, geography, geology, history, economics, philosophy, physics and political science. The core courses are taught by a faculty team from natural sciences and social sciences, who will present the concepts from the empirical and humanistic perspectives. The teaching team changes each term so that faculty from any given CLAS department will rotate through the core courses every 3-4 years.

The minor comprises 18 hours, distributed as follows:

- two core courses that introduce students to the systems theories that document how living things affect and are affected by their environments
- two electives chosen from an approved list of CLAS courses
- students select either a field study, internship, service learning or related travel study course
- capstone course in sustainability

Requirements for the Minor

Core Courses

- SUST 3010 - The Non-Sustainable Past
- SUST 3011 - Toward a Sustainable Future

Total: 6 Hours

Electives

Choose two from the following list of approved electives:

Anthropology

- ANTH 1302 - Introduction to Archaeology
- ANTH 1303 - Introduction to Biological Anthropology
- ANTH 2102 - Culture and the Human Experience
- ANTH 3006 - Sustainable Development and Equity
- ANTH 3301 - World Prehistory
- ANTH 3512 - Human Evolution
- ANTH 4030 - Ethnobiology
- ANTH 4060 - Evolutionary Medicine
- ANTH 4070 - Culture of Development and Globalization
- ANTH 4170 - Culture and the Environment
- ANTH 4450 - Development and Conservation: Contemporary Issues
- ANTH 4460 - Development and Conservation: Theory and Practice
- ANTH 4560 - Human Ecology

Biology

- BIOL 1550 - Basic Biology: Ecology and the Diversity of Life
- BIOL 3330 - Plant Diversity
- BIOL 3411 - Principles of Ecology
- BIOL 3412 - Fundamentals of Applied Ecology
- BIOL 3521 - Vertebrate Biology
- BIOL 4154 - Conservation Biology

Business

- MGMT 4950 - Special Topics in Management
when offered as Business and Sustainability
- MKTG 4950 - Special Topics
when offered as Nonprofit and Social Marketing

Chemistry

- CHEM 1474 - Core Chemistry: Chemistry For the Consumer
- CHEM 4700 - Environmental Chemistry
- CHEM 5700 - Environmental Chemistry

Communication

- COMM 4282 - Environmental Communication
- COMM 5282 - Environmental Communication

Economics

- ECON 4530 - Economics of Natural Resources
- ECON 4540 - Environmental Economics
- ECON 4770 - Economic Development--Theory and Problems
- ECON 5530 - Economics of Natural Resources
- ECON 5540 - Environmental Economics

Geography / Geology / Environmental Science

- ENVS 1042 - Introduction to Environmental Sciences
- ENVS 1342 - Environment, Society and Sustainability
- ENVS 3082 - Energy and the Environment
- GEOG 1202 - Introduction to Physical Geography
- GEOG 3302 - Water Resources
- GEOG 3411 - Globalization and Regional Development
- GEOG 4010 - Landscape Geochemistry
- GEOG 4020 - Earth Environments and Human Impacts

- GEOL 4030 - Environmental Geology
- GEOG 4090 - Environmental Modeling with Geographic Information Systems
- GEOG 4230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 4265 - Sustainability in Resources Management
- GEOG 4335 - Contemporary Environmental Issues
- GEOG 4350 - Environment and Society in the American Past
- GEOG 4640 - Urban Geography: Denver and the U.S.
- GEOG 5090 - Environmental Modeling with Geographic Information Systems
- GEOG 5230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 5265 - Sustainability in Resources Management
- GEOG 5335 - Contemporary Environmental Issues
- GEOG 5350 - Environment and Society in the American Past
- GEOG 5640 - Urban Geography: Denver and the U.S.

History

- HIST 3350 - Colonial Latin America
- HIST 3360 - Denver History
- HIST 3366 - Environmental History of North America
- HIST 3451 - Introduction to African History
- HIST 3460 - Introduction to Latin American History
- HIST 3470 - Introduction to Asian History
- HIST 3606 - Science, Technology, and Society in the Modern World
- HIST 4217 - Consumer Culture
- HIST 4226 - U.S. Business History
- HIST 4227 - American West
- HIST 4236 - Colorado Mining and Railroads
- HIST 4411 - Modern Mexico
- HIST 4417 - Commodities and Globalization: Dessert in World History
- HIST 4421 - Modern China
- HIST 4431 - Modern Japan
- HIST 4451 - Southern Africa
- HIST 4461 - The Modern Middle East
- HIST 4501 - World History for Educators
- HIST 4503 - Topics in History of Science
- HIST 4504 - Animals in U.S. History

Physics

- PHYS 3082 - Energy and the Environment
- PHYS 4850 - Physics for Design and Innovation I
- PHYS 4852 - Physics for Design and Innovation II
Note: PHYS 4850 is prerequisite for PHYS 4852
- PHYS 5850 - Physics for Design and Innovation I
- PHYS 5852 - Physics for Design and Innovation II
Note: PHYS 5850 is prerequisite for PHYS 5852

Philosophy

- PHIL 4250 - Environmental Ethics
- PHIL 5250 - Environmental Ethics

Political Science

- PSCI 3034 - Race, Gender, Law and Public Policy
- PSCI 3035 - Political Movements: Race and Gender
- PSCI 3042 - Introduction to International Relations
- PSCI 3914 - The Urban Citizen
- PSCI 4009 - Politics of the Budgetary Process
- PSCI 4014 - Media and Politics
- PSCI 4025 - Local Governance and Globalization
- PSCI 4085 - Comparative Public Policy
- PSCI 4144 - Indigenous Political Systems
- PSCI 4206 - Social Movements, Democracy and Global Politics
- PSCI 4207 - Theories of Social and Political Change
- PSCI 4215 - Women's Rights, Human Rights: Global Perspectives
- PSCI 4226 - The United Nations in World Affairs
- PSCI 4248 - Gender, Globalization and Development
- PSCI 4324 - Politics, Public Policy and Leadership
- PSCI 4326 - Advanced International Political Economy: Globalization
- PSCI 4354 - Environmental Politics
- PSCI 4365 - Global Ecological Crises
- PSCI 4374 - Public Priorities for the 21st Century
- PSCI 4545 - Immigration Politics
- PSCI 4555 - International Women's Resistance
- PSCI 4645 - Comparative Political Leadership

Total: 6 Hours

Experiential learning course

Students choose a field study, internship, service learning or related travel study course.

Total: 3 Hours

Capstone

- SUST 4960 - Capstone in Sustainability

Total: 3 Hours

Total: 18 Hours

Theatre, Film and Television Minor

To declare a CAM minor, please see the College of Arts & Media's Office of Advising and Student Services in Arts Building, 177.

Students may transfer up to 6 semester hours of non-CU Denver courses toward a minor. All other courses must be taken at CU Denver. Each course must be completed with a grade of C (2.0) or better. Students may use up to 6 semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to the major requirements. Consult an advisor in the College of Arts & Media at CAMadvising@ucdenver.edu for more information.

Program Requirements

- FITV 1200 - Aesthetics of Television
- THTR 1001 - Introduction to Theatre & Arts in the Community
_____ - Theatre, Film and Video Production Electives (12 semester hours) *Chosen in consultation with a Theatre, Film and Video Production (TFVP) Department faculty advisor.*

Select two courses from the following (in consultation with TFVP faculty advisor):

- FITV 3200 - History of Film to 1937
- FITV 3300 - History of Film from 1938
- THTR 3610 - Performance: Theory/History/Criticism I
- THTR 3620 - Performance: Theory/History/Criticism II

Total: 24 Hours

Urban and Regional Planning Minor

The undergraduate planning minor in the Department of Geography and Environmental Sciences provides non-geography undergraduate students the opportunity to pursue studies in the professional field of planning. Geography majors can pursue the urban studies option, so this minor would not be available to these majors.

Geography and urban and regional planning share a common concern for the spatial configuration of the places that we inhabit and enjoy. In recognition of this close association, there is currently an articulation agreement between the Department of Geography and Environmental Sciences and the College of Architecture and Planning that provides students with a mechanism for acceleration through the master of urban and regional planning (MURP) degree program, if accepted into that graduate program. Those students completing the requirements for an undergraduate planning minor may also be eligible to pursue an accelerated MURP degree.

To meet the requirements for this minor, students must complete three core requirements and two electives, totaling 15 semester hours. Although the three core courses may be taken in any order, it is advisable to begin with GEOG 1602, since this course familiarize students with many key concepts used in other classes. All core courses are offered on a yearly basis.

Program Requirements

Required Core

- GEOG 1602 - Introduction to Urban Studies
- GEOG 4640 - Urban Geography: Denver and the U.S.
- GEOG 4680 - Urban Sustainability: Perspectives and Practice

Total: 9 Hours

Electives

Choose two of the following courses:

- GEOG 4000 - Planning Methods I
- GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 4080 - Introduction to GIS
- GEOG 4085 - GIS Applications for the Urban Environment
- GEOG 4090 - Environmental Modeling with Geographic Information Systems
- GEOG 4095 - Deploying GIS Functionality on the Web
- GEOG 4230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 4235 - GIS Applications in the Health Sciences
- GEOG 4400 - Regional Economic Development
- GEOG 4450 - Urban Food and Agriculture: Perspectives and Research
- GEOG 4630 - Transportation Planning I: Transport Network Analysis
- GEOG 4990 - Special Topics

Total: 6 Hours

Minor Total: 15 Hours

Entrance Requirements

All undergraduate students, except geography majors, are eligible for this minor.

Performance Requirements

Students must complete 15 semester hours in geography and/or planning. Because of the professional nature of this minor and the potential for fast-tracking in the MURP program, 12 semester hours of upper-division courses are required. Students must achieve a grade of *C* (2.0) or higher in required courses. All upper-division courses must be completed at CU Denver and a minimum of 9 semester hours must be completed in CLAS (geography) to satisfy residency requirements.

Women's and Gender Studies Minor

The women's and gender studies minor gives students the opportunity to explore gender issues in the humanities and social sciences. To minor in WGST, a student must complete 18 semester hours in WGST courses with a grade of C or better. At least 12 semester hours for the WGST minor must be taken with CU Denver faculty, and all courses for the minor must be approved by a WGST advisor.

Requirements for the Minor

1. Required Course: WGST 1050 (3 semester hours)

This course provides an introduction to key concepts, themes and approaches to the interdisciplinary field of women's and gender studies. It helps students develop an overall framework for WGST in which to place their electives and internship.

- WGST 1050 - Introduction to Women's and Gender Studies

2. WGST-related courses at the 3000 level or above (12 semester hours)

These courses combine humanities and social science fields. Advisor approval is required for course selection. Students are strongly urged to take at least one course that focuses on women's and gender issues in international perspective. Courses which are eligible for WGST credit include (but are not limited to):

Humanities

- ENGL 3450 - Twentieth Century Women Writers
- ENGL 4510 - Whores and Saints: Medieval Women
- FREN 4510 - French Women Writers
- HIST 3343 - Women in U.S. History
- HIST 4230 - Women in the West
- HIST 4303 - Sex and Gender in Modern Britain
- HIST 4307 - History of Sexuality
- HIST 4345 - Gender, Science, and Medicine: 1600 to the Present
- PHIL 3500 - Ideology and Culture: Racism and Sexism
- PHIL 4933 - Philosophy of Eros
- RLST 4420 - Goddess Traditions
- SPAN 4540 - Race, Class, and Gender in Spanish Golden Age Literature
- WGST 4306 - Survey of Feminist Thought
- -OR- ENGL 4306 - Survey of Feminist Thought
- -OR- HIST 4306 - Survey of Feminist Thought

Social Sciences

- ANTH 4200 - Gender in Cross-Cultural Perspective

- ANTH 4260 - Human Reproductive Ecology
- COMM 3275 - Family Communication
- COMM 4020 - Feminist Perspectives on Communication
- COMM 4045 - Female-Male Friendships
- COMM 4265 - Gender and Communication
- COMM 4268 - Communication and Diversity in U.S. History
- ECON 3100 - Economics of Race and Gender
- ECON 3400 - Economics of Sex and Drugs
- HBSC 3010 - Human Sexuality and Public Health
- PSCI 3034 - Race, Gender, Law and Public Policy
- PSCI 3035 - Political Movements: Race and Gender
- PSCI 4215 - Women's Rights, Human Rights: Global Perspectives
- PSCI 4248 - Gender, Globalization and Development
- PSCI 4555 - International Women's Resistance
- PSCI 4564 - Gender and Politics
- PSCI 4827 - Women and the Law
- PSYC 3235 - Human Sexuality
- PSYC 3405 - Family Psychology
- PSYC 3611 - Psychology of Women
- PSYC 3612 - Domestic Abuse
- SOCY 3010 - Sociology of Human Sexuality
- SOCY 3080 - Sex and Gender
- SOCY 3700 - Sociology of the Family
- SOCY 4120 - Popular Culture and the American Family

See the WGST Web site for this semester's course offerings.

3. WGST Community Internship (3 semester hours)

An internship working in the community around issues related to women and gender. Working with a WGST advisor and the CU Denver Experiential Learning Center (ELC), students will choose an internship related to their interests in WGST. Through the ELC, students sign up for their internship under WGST 3939. Students will be required to complete a critical writing component comprising an ongoing log about the internship experience and an 8-10 page final paper discussing the interrelationships between the practical internship experience and the theoretical/scholarly insights of women's and gender studies. Students may also choose to use WGST 2900, Smart Girl Leadership Training, in lieu of their internship and must follow the requirements of that course and practicum. Students must have taken WGST 1050 before enrolling for their internship.

- WGST 3939 - Internship
- -OR- WGST 2900 - Smart Girl Leadership Training and Practicum

Total: 18 Hours

Writing Minor

The writing minor allows students to complement their area of major study with systematic experience in writing.

Students minoring in writing must complete a total of 15 hours (excluding ENGL 1010, 1020, 2030). None of the required 15 hours may be taken pass/fail. Only courses completed with a grade of C (2.0) or better may be counted toward the minor. A minimum of 9 upper-division hours of work in the minor must be taken with CU Denver English faculty.

Students are encouraged to take ENGL 1020 and ENGL 2030 before beginning the minor. Courses in a minor cannot be counted toward the English Major or English Writing major; consult an English advisor for substitutions.

Courses

Required Courses

- ENGL 2060 - Introduction to Writing Studies
- ENGL 3084 - Multimedia Composition
- ENGL 3160 - Language Theory
- -OR- ENGL 4080 - History of English Language

Total: 9 Hours

Area Requirements

Choose one course from the following:

- ENGL 3154 - Technical Writing
- ENGL 3170 - Business Writing
- ENGL 4190 - Special Topics in Rhetoric and Writing (non-repeatable)

Total: 3 Hours

Elective

One 3000- or 4000-level course.

Total: 3 Hours

Minor Total: 15 Hours

Undergraduate Experiences

First-Year Seminar Program

The Office of Undergraduate Experiences offers the optional First-Year Seminar (FYS) program, with courses designed to assist students in successfully transitioning from high school to college, improve student retention, and boost new student confidence. FYS courses integrate rigorous academic content with academic skills such as library usage, campus resources, information literacy, time management, communication skills, and career counseling. Class size is capped at 24 students to facilitate interaction between student and instructor, and to allow the instructor to serve as a mentor in the student's first semester of college.

The FYS program strives to both challenge and support students so that each can excel academically and personally at CU Denver. FYS classes engage students in active learning beyond the traditional classroom, laboratory, or studio setting. In FYS courses, students learn about themselves and their abilities. The experiences obtained from the FYS program aim to promote academic exploration and interdisciplinary learning, civic engagement, cultural awareness, leadership, problem solving, and other professional skills.

The strong academic component of FYS courses allows the course to count toward graduation requirements in the CU Denver Core curriculum, or general education program, which is required of all undergraduate students. Students are encouraged to use the FYS program to explore areas outside their major. Students should work with their academic advisor during orientation to select an appropriate FYS course. Requirements vary slightly, but students should expect weekly writing and reading, participation in events outside the classroom, and a final project.

The First-Year Seminar program is optional, but highly encouraged for new students transitioning from high school to college. Students may only take one FYS course.

WHY PARTICIPATE?

- higher first semester grades
- student engagement with campus activities
- higher student satisfaction facilitated by small class size and a faculty mentor
- knowledge and utilization of campus resources designed to assist students
- early exploration of career paths and a suitable major
- more likely to stay in college
- Core curriculum credit
- active learning pedagogy designed to improve writing and critical thinking skills

Please visit our website for the current FYS course offerings.

University Honors and Leadership Program

Director: Steven G. Medema

Program Coordinator: Phyllis Chaney

Office: 1047 Ninth Street Park

Telephone: 303-556-5297

Fax: 303-556-6744

E-mail: UHL@ucdenver.edu

Web site: www.ucdenver.edu/uhl

University Honors and Leadership (UHL) is a program of excellence designed for students who have demonstrated superior achievement in academic performance and/or outstanding leadership qualities. UHL is founded on the premise that the integration of rigorous programs of academic excellence and leadership education provides the ideal environment in which to develop the gifts of the next generation of leaders in academia, business, policy-making, and service to communities local, national, and global.

The UHL program is unique in integrating academic honors and leadership education within a highly selective learning community of outstanding students and faculty. UHL allows students to complement their major field of study with a traditional honors experience in the academic honors track or a program of leadership education in the leadership studies track. Students move through the UHL program in cohorts that simultaneously promote community, teamwork, and individual initiative. All UHL courses are multidisciplinary, reflecting the view that the ability to effectively analyze the challenges faced in all sectors of society can be enhanced by the integration of appropriate information drawn from a broad base of perspectives and problem-solving skills. The UHL program complements this philosophy with an emphasis on the development of exceptional oral and written communication skills, projects that steep students in sophisticated research methods, and the opportunity to work in teams to solve practical problems in the community.

The Academic Program

UHL is a multidisciplinary cohort program consisting of 27 semester hours of coursework to be completed over four years. The UHL courses substitute for most of the CU Denver Core curriculum requirements.

UHL students are given the opportunity to pursue a traditional honors experience through the academic honors track of the program or to focus on leadership education through the leadership studies track. UHL students have a shared first-year experience, taking a core of coursework common to both tracks. The second and third years of the UHL program offer programs designed specifically for the academic honors and leadership studies tracks. The UHL students come together for a two-semester capstone research seminar in the fourth year.

UHL Core

The UHL Core is a body of courses, the completion of which is required of all UHL students. The UHL core includes:

- UNHL 1100 Introduction to University Honors and Leadership
- UNHL 2755 UHL Seminar
- ENGL 2030 - Core Composition II
- UNHL 4991 - Senior Research Seminar I
- UNHL 4992 - Senior Research Seminar II

Waiver of English 2030 requirement for UHL Students

All UHL students who have not previously received credit for English 2030 or its equivalent are required to complete a UHL section of English 2030. UHL students who have previously received credit for English 2030 or the equivalent will not receive additional CU Denver credit for English 2030 and so are not required to take the UHL section of this course. Students who believe that they are exempt from the English 2030 requirement should meet with the UHL advisor to confirm this exemption.

Credit Hour and Distribution Requirements for UHL Certification

UHL students are required to complete 27 credit hours of UHL courses, including two (2) one-semester-hour UHL seminars, in order to graduate with UHL certification. Students who have previously received credit for English 2030 or the equivalent must complete 24 hours of UHL courses. In addition, students are required to structure their UHL curricula so that they satisfy the CU Denver core curriculum requirements within their UHL programs of study. Students should meet regularly with the UHL advisor in order to ensure that their UHL coursework satisfies the necessary requirements for UHL certification and CU Denver graduation.

Academic Honors Track Requirements

The academic honors track provides a rigorous academic experience to complement the student's major, develops an environment for lifelong learning, and promotes self-discovery. Students are exposed to complex problems, competing perspectives, and differing approaches to important topics. Undergraduate research is emphasized in the academic honors track to prepare students for graduate school or a post-baccalaureate professional program.

The second and third year of the academic honors program develops students' core knowledge areas through the integration of humanities, arts, science, behavioral and social science, international perspectives, and cultural diversity by way of multidisciplinary courses where students are exposed to multidimensional issues. As they continue to build and broaden their communication, analytical, and critical thinking skills, students learn to apply knowledge to new areas, expand their view of the world, and develop sensitivity to and appreciation of the arts, diversity, and global society.

Minor in Multidisciplinary Research Methods

Students pursuing the academic honors track have the opportunity to earn a minor in "Multidisciplinary Research Methods."

Leadership Studies Track Requirements

The leadership studies track develops skills and experiences that prepare students for the challenges of leadership in corporate, institutional, and public life. Leadership studies students work together to develop their abilities to meet the challenges of a world characterized by the increasing globalization of leadership responsibilities and the rapid change in what leaders need to learn and know. They confront complex issues, individually and in teams, while taking responsibility for becoming lifelong learners.

Students develop their leadership potential through self-guided learning strategies, practical team projects, theory-based seminars, contact with outstanding leaders, and individualized

mentoring. The leadership studies track is designed to create a collaborative learning environment where students work in action-oriented teams on innovative solutions to practical issues.

Minor in Leadership Studies

Students pursuing the leadership studies track have the opportunity to earn a minor in "Leadership Studies."

UHL Graduation Requirements

In order to graduate with "University Honors," students are required to satisfy course and credit hour requirements and must have a GPA of 3.50 or higher in their UHL courses. No grade below B- (2.70) in a UHL course will count toward the UHL graduation requirements.

The UHL Admissions Process

Admission to the UHL program is competitive. In addition to meeting published requirements for admission to CU Denver, students must have a high school GPA, class ranking and SAT/ACT scores commensurate with an honors educational experience. For example, we expect that applicants would rank in the top 10 percent of their high school class and/or have scored in the 90th percentile or above on the SAT/ACT.

Students who wish to be considered for admission to the UHL program must submit the following application materials:

- A completed UHL application form
- A written essay
- Two letters of recommendation
- High school transcripts and transcripts for all college-level work completed to date
- SAT and/or ACT scores
- One photo (head-shot)

A personal interview is required with all students who are selected as finalists for admission.

Applicants for admission to the UHL program should show evidence of ability and desire to:

- Take responsibility for their own learning, for self-discovery, and for personal and intellectual growth.
- Learn about and understand diverse, competing perspectives, viewpoints, and values
- Profit from varied modes of learning
- Become responsible and contributing members of the UHL program, the university, and society.

Application information can be found on the UHL website: www.ucdenver.edu/UHL.

Transfer Student Admissions

Due to the cohort-based nature of the UHL program, transfer applications can generally only be considered for students who have completed less than 30 credit hours of university-level coursework. In addition, potential admission is contingent on the availability of slots in the current UHL cohort.

Please note that students who are admitted into the UHL program after the first semester of their freshman year will be required to complete the first-year UHL courses during their first two semesters in the program. No UHL credit can be granted for honors or leadership courses completed through other university honors programs.

Graduate Degree Programs

Accounting MS

Program Director: Michael Roberts

Telephone: 303-315-8460

E-mail: Michael.Roberts@ucdenver.edu

Faculty

Professors:

Bruce Neumann, PhD, University of Illinois

Associate Professors:

Gary Colbert, PhD, University of Oregon

Carol Dee, PhD, Louisiana State University

L. Ann Martin, PhD, University of Minnesota

Michael Roberts, PhD, Georgia State University

Assistant Professors:

Mary Malina, PhD, University of Colorado Boulder

Craig A. Sisneros, PhD, Arizona State University

William R. Strawser, PhD, Texas A&M University

Senior Instructors:

Elizabeth Connor, MS, Colorado State University

Robert Hockenbury, MS, University of Houston

Instructors:

Emily Vera, MS, University of Colorado Denver

Hailey Ballew, MS, University of Kansas

Roger Stace, PhD-ABD, University of Western Australia

The master of science in accounting offers three specializations plus a flexible program which allows students to design individualized courses of study.

The program provides students the opportunity to acquire a thorough understanding of financial and managerial accounting, auditing and taxation in preparation for successful careers in public or private accounting, as well as government or nonprofit accounting.

Students completing the MS in accounting will complete:

- 12 semester hours of required accounting core coursework
- 6 semester hours of elective accounting coursework*
- 6 semester hours of accounting capstones
- 6 semester hours of free business electives

*The elective course work can be selected from graduate accounting courses or by selecting one of the three specializations offered within the program. Students who select the accounting and information systems audit and control (AISAAC) specialization have completely different requirements which are listed under that specialization.

A. Background Accounting Courses*

The MS in accounting also requires completion of the following accounting prerequisites. Prerequisites may be completed at the undergraduate or graduate level, with a grades of B- or higher and a cumulative GPA of 3.0. Students with grades below a B may be subject to probation.

Required Courses:

- BUSN 6550 - Analyzing and Interpreting Accounting Information
undergraduate equivalent: ACCT 2200 and ACCT 2220
- ACCT 6030 - Financial Accounting
undergraduate equivalent: ACCT 3220 and ACCT 3230
- ACCT 6070 - Management Accounting
undergraduate equivalent: ACCT 3320

Total: 9-15 Hours

*Waived for students with appropriate background.

Accounting courses may be taken by nondegree or non-matriculated students.

B. Common Body of Knowledge (CBK)

Based on prior coursework, students may be required to take up to two background courses. The following are suggested:

- BUSN 6530 - Data Analysis for Managers
- BUSN 6620 - Applied Economics for Managers

C. MS Accounting

Accounting Core

(12 semester hours)

Students should not repeat any course successfully completed at the undergraduate level with a grade of B- or higher. An advisor will evaluate prior coursework to determine substitutions.

- BUSN 6540 - Legal and Ethical Environment of Business
- ACCT 6020 - Auditing Theory
- ACCT 6054 - Accounting Systems and Data Processing
- ACCT 6140 - Tax Planning for Managers

Accounting Electives

(6 semester hours)

ACCT courses numbered 6000 or higher excluding ACCT 6030 or ACCT 6070.

Or, courses contributing to one of the three following specializations may be used to meet this elective requirement.

D. Accounting Specializations

Students may use a combination of accounting and free electives to complete one of the three following specialization options:

Auditing and Forensic Accounting Specialization

- ACCT 6025 - Auditing Practice
- ACCT 6280 - Professional Judgment and Decision Making in Accounting
- ACCT 6340 - Financial Statement Analysis
- ACCT 6360 - Fraud Examination
- ACCT 6370 - International Accounting
- ACCT 6380 - Forensic Accounting
- ACCT 6470 - Internal Auditing
- ACCT 6510 - Accounting and Information Systems Processes and Controls
- ACCT 6620 - Advanced Auditing

Controllership and Financial Leadership Specialization

Choose four of the following courses:

- ACCT 6024 - Advanced Financial Accounting
- ACCT 6033 - Advanced Managerial Accounting
- ACCT 6080 - Accounting for Government and Nonprofit Organizations
- ACCT 6280 - Professional Judgment and Decision Making in Accounting
- ACCT 6285 - Accounting and Finance for Sustainability
- ACCT 6340 - Financial Statement Analysis
- ACCT 6350 - Current Issues in Professional Accounting
- ACCT 6370 - International Accounting
- ACCT 6520 - Issues in Oil and Gas Accounting

Taxation Specialization

- ACCT 6400 - Taxation of Corporations and Shareholders
- ACCT 6410 - Advanced Tax For Individuals
- ACCT 6420 - Taxation of Estates and Gifts
- ACCT 6430 - International Taxation
- ACCT 6440 - Tax Practice and Procedures

- ACCT 6450 - Research Problems In Taxation
- ACCT 6460 - Advance Topics in Taxation
- ACCT 6480 - Partnership Taxation
- ACCT 6482 - Advanced Partnership Taxation
- ACCT 6500 - Advanced Corporate Taxation

E. Accounting Capstone

(6 semester hours)

- ACCT 6250 - Seminar: Financial Accounting
- ACCT 6260 - Seminar: Managerial Accounting

F. Free Elective

(6 semester hours)

Accounting is increasingly diverse and linked to many business decisions. Accountants may eventually work as systems designers, chief financial officers, cost analysts, budget officers or chief executive officers. Students will be better prepared for their careers if they develop competencies in a related field, which may be chosen from a single discipline such as finance, information systems, decision sciences, entrepreneurship, international business, marketing, or management.

Free electives may consist of any course numbered 6800 or higher with BUSN prefix or any course numbered 6000 or higher with a prefix of ACCT, ENTP, FNCE, INTB, ISMG, MGMT, DSCI, or MKTG excluding ACCT 6030 and ACCT 6070

G. Total: 30 Hours

Accounting and Information Systems Audit and Control (AISAAC) Specialization

Recently, new regulatory environments have required companies to provide better documentation of their accounting and IT systems to improve the management and disclosure of their business processes for better financial and regulatory controls. Accounting and IT professionals have significant roles in audit and control activities, since they control the systems that monitor and report on finance, planning and operations. The courses within this specialization cover business-process management and financial controls; the emerging trends and practices in privacy and security; the strategies for integrating governance and compliance; and the IT organization's financial and business intelligence services. These courses will focus on how to leverage the existing IT infrastructure to establish quality in financial and internal audit processes and address the regulatory issues associated with reporting, consolidation and document/content management more effectively and completely.

As you will notice the complete 30 semester hour requirements for this specialization are listed below.

Accounting Core

(9 semester hours)

- ACCT 6620 - Advanced Auditing
- ACCT 6250 - Seminar: Financial Accounting
- ACCT 6260 - Seminar: Managerial Accounting

AISAAC Common Courses

(12 semester hours)

- ACCT 6020 - Auditing Theory
- ACCT 6510 - Accounting and Information Systems Processes and Controls
- ISMG 6040 - Business Process Management
- ISMG 6420 - Global Enterprise Systems

Choose three of the following courses:

(9 semester hours)

- ACCT 6340 - Financial Statement Analysis
- ACCT 6360 - Fraud Examination
- ISMG 6080 - Database Management Systems
- ISMG 6180 - Information Systems Management and Strategy
- ISMG 6220 - Business Intelligence Systems
- ISMG 6430 - Information Systems Security and Privacy
- ACCT 6470 - Internal Auditing

Total 30 hours

Administrative Leadership and Policy Studies EdS

Administrative Leadership and Policy Studies

Requirements for Principal Licensure, the MA and EdS degrees, and Executive Leadership Administrator Licensure Program

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Web site: www.ucdenver.edu/education/alps

Principal Licensure

Master of Arts Degree

Education Specialist Degree

Executive Leadership Administrator Licensure Program

Faculty

For information about faculty in this area, visit <http://www.ucdenver.edu/education/alps>.

The primary responsibility of the administrative leadership and policy studies (ALPS) faculty is to prepare leaders for public education in Colorado and the nation. Currently, the principal license is required for people seeking building-level administrative positions in Colorado.

Principal Licensure Program

ALPS offers course work that leads to the initial license for principal. Having earned an initial license, those who have obtained a master's degree and who go on to complete a district sponsored induction program may then be awarded a professional license by the Colorado Department of Education.

ALPS's 32 semester-hour principal licensure program is project-based, requiring students to present evidence of meeting both state and national standards through performance based assessments. A 400-hour clinical-practice experience is integrated throughout the four-semester program.

Students develop a portfolio during the principal licensure program. Portfolios not finalized by the end of the fourth semester must be completed within the two subsequent semesters (not including summer).

Note: Those already holding a master's degree and 5 years of leadership in education should also see the Executive Leadership Program (below) for pursuing administrator (superintendent) licensure.

Denver Metro-Area Cohorts

Denver metro-area cohorts are delivered in four 8-semester-hour courses over four consecutive semesters. Cohorts start at one or more locations each semester and involve a combination of regular in-person meetings (up to 15 times per semester) and online work.

EDUC 5751 - Principal/Administrator Licensing I Semester Hours: 5 to 9

EDUC 5752 - Principal Administrator Licensing II. Semester Hours: 5 to 9

EDUC 5753 - Principal/Administrator Licensing III. Semester Hours: 5 to 9

EDUC 5754 - Principal or Administrator Licensing IV. Semester Hours: 5 to 9

Total: 32 Hours

Distance-Learning Cohorts

Distance-learning cohorts start each summer in June with a weeklong boot camp in Denver, meet over several intensive weekends during the subsequent fall and spring semesters and end with a weekend the following summer. Online work is completed in between the in-person sessions. Distance-learning cohorts are delivered in **three 9-semester-hour courses and one 5-semester-hour course:**

EDUC 5751 - Principal/Administrator Licensing I. Semester Hours: 5 to 9

EDUC 5752 - Principal Administrator Licensing II. Semester Hours: 5 to 9

EDUC 5753 - Principal/Administrator Licensing III. Semester Hours: 5 to 9

EDUC 5754 - Principal or Administrator Licensing IV. Semester Hours: 5 to 9

Total: 32 Hours

MA Program

The MA is designed for those who do not already hold a graduate degree. Usually master's students will complete 9 semester hours beyond the 32 required in the licensure program, for a total of 41 semester hours of course work after the bachelor's degree.

For the MA degree, students must select at least one course in each of the following three areas:

Section A: Educational Research

RSEM 5100 - Basic Statistics Semester Hours: 3

RSEM 5120 - Introduction to Research Methods Semester Hours: 3

RSEM 5110 - Introduction to Measurement Semester Hours: 3

Section B: Educational Foundations/Multicultural Education

FNDS 5050 - Critical Issues in American Education. Semester Hours: 3

FNDS 5500 - Contemporary Philosophies of Education. Semester Hours: 3

FNDS 5410 - History and Philosophy of Modern Education. Semester Hours: 3

LCRT 5140 or CLDE 5140 - Multicultural Education Semester Hours: 3

LCRT 5150 or CLDE 5150 - Culture of the Classroom Semester Hours: 3

CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdns Semester Hours: 3

Section C: Educational Psychology/Special Education

EDUC 5400 - Special Education Seminar for Principals. Semester Hours: 3

EPSY 5100 - Advanced Child Growth and Development. Semester Hours: 3

EPSY 5110 - Human Learning. Semester Hours: 3
EPSY 5140 - Advanced Adolescent Growth and Development. Semester Hours: 3
EPSY 5160 - Behavior Disorders in Exceptional Children. Semester Hours: 3
EPSY 5200 - Social Psychology of Learning. Semester Hours: 3
SPED 5140 - Advanced Assessment in Special Education. Semester Hours: 3
SPED 5180 - Curriculum Planning for Students with Special Needs. Semester Hours: 3
SPED 5400 - Advanced Seminar in Special Education. Semester Hours: 3
SPED 5600 - Special Education for School Professionals. Semester Hours: 3

Candidates must also successfully complete a comprehensive exam paper, reflecting on how the three MA classes will help them in the role of principal.

EdS Program

The EdS degree program affords the opportunity for advanced graduate study and is available to those who already hold a master's degree. Generally, for the specialist degree students will complete 9 semester hours that constitute an area of focus, in addition to the 32 required in the licensure program. Candidates must also successfully complete a comprehensive exam paper, reflecting on how the three EdS classes will help them in the role of principal.

Administrator Licensure - Executive Leadership Program

Designed for the professional educator who, already holding a master's degree and 5 years leadership experience in education, wishes to obtain an initial administrator license in Colorado and prepare for a career as a superintendent or other district leader. This one-year, 12-semester-hour certificate program combines weekend meetings with online work and hands-on clinical practice—usually completed in participants' home districts. Learn more at www.ucdenver.edu/education/elp.

Additional Program Information

Individuals interested in any of these programs are encouraged to contact ALPS faculty. Conferences prior to application are encouraged and welcomed. Following admission, students are expected to maintain frequent contact with assigned advisors to plan, develop and complete their programs of study.

Administrative Leadership and Policy Studies MA

Administrative Leadership and Policy Studies

Requirements for Principal Licensure, the MA and EdS degrees, and Executive Leadership Administrator Licensure Program

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Principal Licensure

Master of Arts Degree

Education Specialist Degree

Executive Leadership Administrator Licensure Program

Faculty

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Students develop a portfolio during the principal licensure program. Portfolios not finalized by the end of the fourth semester must be completed within the two subsequent semesters (not including summer).

Note: Those already holding a master's degree and 5 years of leadership in education should also see the Executive Leadership Program (below) for pursuing administrator (superintendent) licensure.

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MA Program

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For the MA degree, students must select at least one course in each of the following three areas:

Section A: Educational Research

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RSEM 5110 - Introduction to Measurement Semester Hours: 3

Section B: Educational Foundations/Multicultural Education

FNDS 5050 - Critical Issues in American Education. Semester Hours: 3

FNDS 5500 - Contemporary Philosophies of Education. Semester Hours: 3

FNDS 5410 - History and Philosophy of Modern Education. Semester Hours: 3

LCRT 5140 or CLDE 5140 - Multicultural Education Semester Hours: 3

LCRT 5150 or CLDE 5150 - Culture of the Classroom Semester Hours: 3

CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdns Semester Hours: 3

Section C: Educational Psychology/Special Education

EDUC 5400 - Special Education Seminar for Principals. Semester Hours: 3

EPSY 5100 - Advanced Child Growth and Development. Semester Hours: 3

EPSY 5110 - Human Learning. Semester Hours: 3
EPSY 5140 - Advanced Adolescent Growth and Development. Semester Hours: 3
EPSY 5160 - Behavior Disorders in Exceptional Children. Semester Hours: 3
EPSY 5200 - Social Psychology of Learning. Semester Hours: 3
SPED 5140 - Advanced Assessment in Special Education. Semester Hours: 3
SPED 5180 - Curriculum Planning for Students with Special Needs. Semester Hours: 3
SPED 5400 - Advanced Seminar in Special Education. Semester Hours: 3
SPED 5600 - Special Education for School Professionals. Semester Hours: 3

Candidates must also successfully complete a comprehensive exam paper, reflecting on how the three MA classes will help them in the role of principal.

EdS Program

The EdS degree program affords the opportunity for advanced graduate study and is available to those who already hold a master's degree. Generally, for the specialist degree students will complete 9 semester hours that constitute an area of focus, in addition to the 32 required in the licensure program. Candidates must also successfully complete a comprehensive exam paper, reflecting on how the three EdS classes will help them in the role of principal.

Administrator Licensure - Executive Leadership Program

Designed for the professional educator who, already holding a master's degree and 5 years leadership experience in education, wishes to obtain an initial administrator license in Colorado and prepare for a career as a superintendent or other district leader. This one-year, 12-semester-hour certificate program combines weekend meetings with online work and hands-on clinical practice—usually completed in participants' home districts. Learn more at www.ucdenver.edu/education/elp.

Additional Program Information

Individuals interested in any of these programs are encouraged to contact ALPS faculty. Conferences prior to application are encouraged and welcomed. Following admission, students are expected to maintain frequent contact with assigned advisors to plan, develop and complete their programs of study.

Anthropology, MA

► Graduate School Rules apply to this program.

Plans of Study

MA students may pursue the thesis or non-thesis option.

- **Thesis Option:** A thesis is characterized by three factors: 1) it is based in a research question or problem; 2) it involves original research; 3) there is a fully developed research proposal. A thesis can also encompass a range of format alternatives to the traditional thesis (e.g. article submitted for publication to a peer-reviewed journal, or a video production, internship or museum exhibit, each generally accompanied by a companion paper developing a theoretical or problem-oriented question). The thesis option requires 30 semester hours, including 4-6 hours of thesis.
- **Non-Thesis Option:** This track is defined by additional course work in lieu of a thesis. The non-thesis option requires 36 semester hours of course work.

Thesis Option

The thesis is a major requirement for those in the MA in anthropology thesis track. The thesis should demonstrate the student's ability to apply knowledge and skills gained from the anthropology department's curriculum. A desirable goal for an excellent thesis would be a work of sufficient rigor and quality that it could be considered for publication. Original data collection ("fieldwork") is recommended but not required for the thesis. Analysis of secondary data—whether quantitative, qualitative, visual or other formats—is perfectly acceptable as long as the research is informed by a clearly articulated research question and under-girded by a research proposal.

The traditional thesis is a single document that often incorporates a literature review, definition of a problem, discussion of methods to address the problem, the subsequent research activity and results. However, the student may design a thesis with different emphases, in consultation with their advisor. For example, the goal may instead be a more compact paper submitted to a peer-reviewed journal. Other thesis plans may combine some research activity such as a video production, museum exhibit or an internship, with an accompanying paper. Students pursuing the thesis option must develop a topic and research proposal that specifies their plans in the semester after their completion of 18 credit hours.

The thesis must be defended before a committee of three faculty, at least two of whom need to be on the Department of Anthropology faculty (which includes senior instructors and research faculty). The structure of the thesis is largely determined by the University of Colorado Denver Graduate School Rules; i.e., a thesis must conform to the rules.

1. For the thesis, students must prepare a full research proposal which must be approved by their thesis chair before beginning their research. This proposal must be completed by the semester after the student has completed 18 credit hours. Sections of the proposal should include, at a minimum:

- a. Introduction and statement of the problem: Should include a one sentence statement of the problem on the first page, and a discussion of its significance (i.e., why is it important that this topic be researched).
- b. Literature review covering theoretical and topical material.
- c. Research design and methods including a data analysis plan.

Note: Wenner-Gren and National Science Foundation both provide good models and templates for the research proposal. Those in the medical anthropology track might want to consider following the NIH model, depending the nature of their research questions and career goals.

2. All students proposing to work with humans or data on modern humans must apply for and receive approval from the Human Subjects Research Committee before they begin their research. Note: most of the material for the application will be drawn from the research proposal.
3. The draft thesis must be reviewed and approved as “defensible” by the student’s thesis committee faculty chair before a thesis defense date can be set. Defensible means the chair has reviewed the draft and suggested changes have been made.
 - a. The draft sent to the student’s committee must be substantively complete: All references must be in the text and properly formatted in a references cited section; there should be no “track changes” comments in the text; the text should be formatted according to Graduate School requirements.
 - b. Given the complexity of faculty and student schedules, consultation on a defense date should be done as far in advance as possible.
 - c. There must be a minimum of three weeks between the agreed-upon date for the defense and distribution of the draft thesis defined as defensible by the student’s chair. If you would like feedback from your committee members before the defense, you should plan to distribute the thesis at least 4 weeks before the defense date.

Note: If you intend to graduate the same semester you defend your thesis, you must schedule, successfully defend, and complete all recommended changes in accordance with CU Denver Thesis and Dissertation Guidelines. This effectively translates to having the thesis completed and “defensible” before the middle of the semester.

Non-Thesis Option

The non-thesis option allows students to pursue their own educational goals through the selection of additional courses that fit their interests. We strongly encourage students who choose this option to consider an internship position arranged around an area of expertise or the development of a skill-set. The internship may be in a governmental agency or non-governmental organization in Colorado, the U.S. or internationally. Successful completion of an internship will be acknowledged on the transcript of the MA program. The decision to pursue the non-thesis option should be made by the semester following the completion of 18 credit hours.

Additional Information

Students must maintain an overall GPA of 3.0 to remain in good standing and receive a grade of *B-* or better in a course to have it count toward graduation. The Graduate School on the Downtown Campus allows up to five years to complete a master's degree, but students are strongly discouraged from spending more than four years. While it is possible to finish the MA in two years, most of our students work part-time, which limits the time they can dedicate to the program; most finish within three years. Four semesters must be taken in residence at CU Denver. All students are required to pass a written comprehensive examination, taken after core course work has been completed.

Some students may benefit from adding a specific skills-based certificate program onto their graduate program. For example: archaeology students may wish to gain expertise in Geographic Information Systems through the GIS certificate offered through the Department of Geography and Environmental Sciences, while medical anthropology students may benefit from the certificate in public health offered through the School of Public Health or the environmental health certificate through the Master of Science in Environmental Sciences program. Graduate-level courses in certificate programs can often fulfill elective requirements in the anthropology program.

One doctoral program at the CU Denver campus that may be of particular interest to graduates of the anthropology MA program is the PhD in Health and Behavioral Sciences . It is highly interdisciplinary and a natural extension of a master's degree in medical anthropology.

Course Requirements

Your graduate anthropology education begins by taking ANTH 5810, Integrating Anthropology, plus two core courses each from two subdisciplines of Anthropology. After completing this core, you will select from among the specialized elective courses in the research concentrations described in more detail below. You will work closely with an advisor in selecting the range of courses appropriate both to a problem orientation and to your career objectives.

Required core courses (18 semester hours)

Required in fall of first year:

- ANTH 5810 - Integrating Anthropology

All students must complete or demonstrate competence in the following:

- ANTH 5053 - Quantitative Methods in Anthropology

Choose two of the following three sets of core courses (Students are not required to take these courses sequentially)

Archaeology

- ANTH 6307 - Contemporary Perspectives in Archaeology
- ANTH 6317 - Archaeological Research Design and Analysis

Biological

- ANTH 6503 - Biological Anthropology Core: The Fossil Record
- ANTH 6513 - Biological Anthropology Core: Modern Human Variation

Cultural

- ANTH 6063 - Qualitative Research Design and Methods
- ANTH 6103 - Current Theory in Ethnography

Research Concentrations (8-18 semester hours)

You will round out your program by selecting from the diverse range of courses offered in the department according to your particular interests in anthropology, your career goals and your plans for future graduate study. You may take courses in one or more concentrations. The courses listed are suggestions only; you must work closely with your advisor in constructing your particular program of study.

MEDICAL ANTHROPOLOGY

Medical anthropology is a subdiscipline of anthropology that includes the study of all aspects of health, illness and disease in human communities and populations. It draws on all of the perspectives that distinguish anthropology as a unique discipline: the analysis of human evolution and adaptation; cultural development, expressions and variability; and historical change and continuity. Medical anthropology takes as its subject a broad range of specific topics, including the study of health care systems, factors that affect the distribution and determinants of disease in populations, maternal and child health, nutrition and food habits, human development, political ecology, health policy and language and communication in health care contexts. Faculty in the department emphasize the applied dimensions of medical anthropology, preparing students for careers in public health, health care and health sciences research. Courses in the department are complemented by electives in other departments (sociology, biology, psychology, history, geography), programs on the Denver campus (health administration, public affairs, education) and programs at the Anschutz Medical Campus (Schools of Medicine, Public Health, Dental Medicine, Pharmacy and Nursing).

Courses

- ANTH 5014 - Medical Anthropology: Global Health
- ANTH 5030 - Ethnobiology
- ANTH 5040 - Anthropology of Food and Nutrition
- ANTH 5060 - Evolutionary Medicine
- ANTH 5090 - Political Economy of Drugs
- ANTH 5150 - Human Biocultural Adaptability
- ANTH 5230 - Anthropology and Community Based Participatory Research
- ANTH 5260 - Human Reproductive Ecology
- ANTH 5300 - Migrant Health
- ANTH 5560 - Human Ecology
- ANTH 5600 - Medical Anthropology
- HBSC 7310 - Environmental Epidemiology

Note: Students are also strongly encouraged to take elective courses in public health, epidemiology and biostatistics, which are available in the Department of Biometrics and Preventive Medicine on the Anschutz Medical Campus. See the Health Professions chapter of this catalog for further information.

ARCHAEOLOGY

The archaeological studies program concentrates on the study of past human societies using archaeological data collected in field and museum settings. While a quantitative and scientific approach is emphasized, the theoretical perspectives employed draw heavily from political economy and cultural ecology. The department offers a variety of theoretical, methodological and area courses, which may be supplemented by others in the geography and environmental sciences and history departments. Internships are available in local museums and historic preservation offices in the Denver metropolitan area.

Courses

- ANTH 5320 - Archaeology of Mexico and Central America
- ANTH 5330 - Lithic Analysis
- ANTH 5380 - Archaeology of Hunters-Gatherers
- ANTH 5400 - Archaeology of Power and Inequality
- ANTH 5570 - Landscape Archaeology
- ANTH 5580 - Neanderthals and the Origin of Modern Humans
- ANTH 5910 - Field Experience in Archaeology
- GEOG 5060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 5080 - Introduction to GIS
- GEOG 5220 - Environmental Impact Assessment
- HIST 5231 - History in Museums
- HIST 5232 - Historic Preservation
- HIST 5234 - Introduction to Public History

BIOLOGICAL ANTHROPOLOGY

The biological anthropology concentration is concerned with modern human biological diversity and the past evolutionary history that has led to such diversity. Students in this concentration develop a firm understanding of the evolutionary processes that lead to physical and behavioral variation in humans and nonhuman primates. The concentration also emphasizes the theoretical and quantitative methods used to explore and explain this variation. Students may take courses in diverse areas including evolutionary biology, genetics, ecology, ethnobiology, epidemiology, nutrition, medical anthropology, paleoanthropology, paleontology and primatology. Because biological anthropology is multidisciplinary in nature, students are encouraged to consider courses offered outside the department.

Courses

- ANTH 5014 - Medical Anthropology: Global Health
- ANTH 5030 - Ethnobiology
- ANTH 5040 - Anthropology of Food and Nutrition
- ANTH 5060 - Evolutionary Medicine
- ANTH 5150 - Human Biocultural Adaptability
- ANTH 5500 - Advanced Issues in Human Evolution
- ANTH 5530 - Anthropological Genetics
- ANTH 5550 - Primate Comparative Anatomy
- ANTH 5560 - Human Ecology
- ANTH 5580 - Neanderthals and the Origin of Modern Humans
- ANTH 5640 - Darwinian Approach to Human Behavior
- BIOL 5074 - Human Reproductive Biology
- BIOL 5134 - Human Genetics
- BIOL 5494 - Population and Evolutionary Genetics
- HBSC 7031 - Human Ecology and Environmental Adaptation
- HBSC 7310 - Environmental Epidemiology

SUSTAINABLE DEVELOPMENT AND POLITICAL ECOLOGY

This concentration provides a critical, multicultural and multidisciplinary perspective on issues of development and resource conservation, with a strong emphasis on the integration of theoretical knowledge with field-based training opportunities. Three major themes are addressed within this concentration:

1. the types of resource management systems present in the world and their relationship to particular ecosystems
2. the types of knowledge systems and ideas associated with this diverse array of resource management systems, environmental knowledge and theoretical perspectives
3. the culture of institutions—ranging from small-scale NGOs to the World Bank—that design and implement conservation and development

A central goal of this emphasis is to provide students with the information, opportunities and resources required for pursuing a wide variety of career options in conservation and/or

development. In addition to offering the following courses, the department encourages students to develop a specialized skill in conjunction with other departments and schools, including areas such as GIS mapping (geography), ecology (biology/anthropology), legal and policy issues (political science, School of Public Affairs), land use (geography, School of Public Affairs) and research/evaluation methodologies (anthropology).

Courses

- ANTH 5030 - Ethnobiology
- ANTH 5070 - Culture of Development and Globalization
- ANTH 5170 - Culture and the Environment
- ANTH 5180 - The Nature of Power
- ANTH 5230 - Anthropology and Community Based Participatory Research
- ANTH 5450 - Development and Conservation: Contemporary Issues
- ANTH 5460 - Development and Conservation: Theory and Practice
- ANTH 5570 - Landscape Archaeology

Other courses in consultation with faculty advisor.

DEGREE TOTAL HOURS

Thesis Option: 30 Hours (including 4-6 hours of thesis)

Non-Thesis Option: 36 Hours

Applied Mathematics, MS

► Graduate School Rules apply to this program.

Program Requirements

Students must present 30 hours of course work and maintain a 3.0 GPA or above for the MS degree. At least 24 of these hours must consist of graduate-level (numbered 5000 or higher) mathematics courses. The remaining 6 hours must be either mathematics courses numbered 5000 or above or approved courses outside the department numbered 4000 or above.

Up to 9 semester hours of prior course work may be transferred in; these must be at the 5000 level or above with a *B-* or better grade. Courses already applied toward another degree (graduate or undergraduate) cannot be used toward the MS degree in applied mathematics. Additionally, the following MATH courses will NOT count toward a graduate degree: MATH 5000-5009, 5012, 5017, 5198 and 5250.

A student may devote from 4 to 6 hours (of the 30 required hours) to the writing of a thesis. Following completion of course work, all candidates must make a one-hour oral presentation before a committee consisting of three graduate faculty members.

Students must take either applied analysis or real analysis and applied linear algebra. Additionally, students must fulfill specific course work requirements for one of the following areas of specialization:

- Applied Probability
- Applied Statistics
- Computational Biology
- Discrete Mathematics
- Mathematics of Science and Engineering
- Numerical Analysis
- Operations Research

All master's degree students are encouraged to participate in the Math Clinic, a unique program in which students have an opportunity to work on real-world problems supplied by local businesses, research firms and government agencies.

For more detailed information about the applied mathematics MS, see the Mathematical & Statistical Sciences Graduate Handbook (July 2010) .

Architecture MArch

The MArch is the college's accredited professional degree for students intending to seek licensure as architects. It is a three-and-one-half-year plan of study on the Denver campus that has been fully accredited by the National Architectural Accrediting Board (NAAB).

Prerequisites

- Students must complete the prerequisites of college-level trigonometry and physics before enrolling in ARCH 5310, Introduction to Building Technology. Since this class should be taken in the first semester in order to stay on track for graduation, students are strongly encouraged to complete the trigonometry and physics requirements before beginning the MArch program.
- ARCH 5000, Math and Physics for Architects, is offered in the summer on a pass/fail basis. This class meets the prerequisite requirements. This class does not count toward the number of credits required for the MArch degree.
- A graphics workshop is recommended for students who do not have a background in architectural drawing and model building. This class is offered each year before the beginning of the fall semester.
- Students are also expected to have achieved a basic level of computer literacy and should be familiar with PC or Mac operating systems.

Program Requirements

Students with a bachelor's or master's degree unrelated to architecture must complete a seven- or eight-semester sequence of course work and accumulate a minimum of 114 semester hours of credit. Students who have completed the college's BSArch or other preprofessional degree in architecture, or foreign non-NAAB-accredited professional degree, will be evaluated individually for advanced standing. These students will be advised and provided with an individualized plan of study commensurate with their previous degrees and experience, and will have to complete at least 60 semester hours of credit in residence within the College of Architecture and Planning.

Course Sequence

The MArch program is divided into five major components:

- studio design studies, 45 semester hours
- cultural studies, 12 semester hours
- technology studies, 18 semester hours
- professional studies, 6 semester hours
- electives, 33 semester hours

A wide array of electives in these areas allows students to tailor their graduate studies to their own interests.

First Year

Fall

- ARCH 5110 - Design Studio I
- ARCH 5111 - Architectural Graphics I

- ARCH 5210 - Introduction to Architecture
- ARCH 5310 - Introduction to Building Technology

Total: 15 Hours

Spring

- ARCH 5120 - Design Studio II
- ARCH 5121 - Design Seminar II
- ARCH 5220 - History of Architecture I
- ARCH 5320 - Building Construction and Methods
- LDAR 6632 - Site Planning - Environment and Society
Elective* (3 semester hours)

Total: 18 Hours

Second Year

Fall

- ARCH 5130 - Design Studio III
- ARCH 5131 - Design Seminar III
- ARCH 5230 - History of Architecture II
- ARCH 5240 - Human Factors in Design
- ARCH 5330 - Environmental Control Systems I
Elective* (3 semester hours)

Total: 18 Hours

Spring

- ARCH 5140 - Design Studio IV
- ARCH 5141 - Design Seminar IV
- ARCH 5340 - Environmental Control Systems II
- ARCH 5350 - Structures I
Electives* (6 semester hours)

Total: 18 Hours

Summer

- ARCH 6150 - Comprehensive Design Studio
- ARCH 6151 - Comprehensive Design Seminar
Electives* (6 semester hours)

Total: 12 Hours

Third Year

Fall

- ARCH 5360 - Structures II
- ARCH 5410 - Professional Practice
- ARCH 6170 - Advanced Design Studio
- ARCH 6171 - Advanced Design Seminar
- Electives* (9 semester hours) or
- ARCH 6950 - Thesis Preparation and Electives (3 semester hours)

Total: 18 Hours

Spring

- ARCH 6170 - Advanced Design Studio
- ARCH 6171 - Advanced Design Seminar
- Electives* (9 semester hours) or
- ARCH 6951 - Architecture Thesis
- Electives* (9 semester hours)

Total: 15 Hours

* Students must take 9 elective semester hours in cultural studies, 9 elective semester hours in professional studies (3 semester hours of which must emphasize the computer), 6 elective semester hours in technology studies and 9 elective semester hours in any architecturally related electives on campus.

Bioengineering MS

► Graduate School Rules apply to this program.

Master of Science (MS) Degree Program

The master of science degree is offered to students with an undergraduate degree in the life sciences or engineering. Students complete the degree in 1-2 years with the choice of research thesis or industry internship. Program details are available on the Department of Bioengineering website.

The department also offers a dual MS degree for students who are already enrolled or accepted into another MS program in the University of Colorado system. Please contact us for advising.

Biology MS

► Graduate School Rules apply to this program.

Graduate MS Program Director: Timberley Roane

Office: Science, 4096

Telephone: 303-556-6592

E-mail: timberley.roane@ucdenver.edu

Website: clas.ucdenver.edu/biology/grad.html

Requirements for Admission

Applicants must hold a baccalaureate degree from an accredited college or university, awarded within the preceding ten years. Students whose biology degree was awarded more than 10 years prior to entrance to the CU Denver program will be expected to retake or show competence in the biology core courses. Successful applicants generally have earned an overall GPA of 3.0 or better. Most applicants have an undergraduate major in biology or a related field. Students entering the master's program in biology must have completed the equivalent of a minor in biology. Although a deficit of one course is allowed, this must be completed within the first semester of entering the master's program and will not apply toward the degree. The general GRE is required of all applicants, with scores above the 50th percentile required on each of the three sections (verbal, quantitative and analytical writing).

Applicants to the master's in biology program must have a declared area of specialization that aligns with the research focus of a biology graduate faculty member. Faculty expertise can be found under Graduate Faculty Profiles on the Department of Integrative Biology website. Students must contact prospective faculty advisors to determine if openings are available within the faculty member's program.

Application deadline is February 1 for domestic U.S. and international students.

Applications submitted after the deadline date WILL NOT be considered. Before submitting an application, students must refer to the Biology MS Program website for additional application criteria. Application to the master's in biology program is through CU Denver Admissions.

Degree Requirements

All course work taken within the Department of Integrative Biology and applied toward the degree must be at the 5000 level or above. A course plan is developed jointly by the student and faculty advisor and is approved by the student's graduate committee. In addition to regular meetings throughout the semester, all students must meet with their faculty advisor at the beginning of each semester to determine course schedules and upcoming deadlines. A pre-registration agreement form is signed by the student and advisor, and then filed with the associate chair for graduate studies in biology to ensure that degree requirements are met, and that selected courses will be applicable toward the MS degree.

With the advisor's and/or graduate committee's approval, a maximum of 6 semester hours of course work at the 4000 level taken outside the department may be applied toward the degree. At least 18 semester hours must be taken from faculty in the Department of Integrative Biology

at CU Denver. Upon approval of the department, as many as 12 semester hours may be transferred into the program.

Students must form a three-person committee consisting of members of the graduate faculty, with at least two from the rostered CU Denver graduate faculty. Committee membership must be approved by the faculty advisor. The research track requires 30 semester hours, including a minimum of 4 and no more than 6 thesis hours. Students may also count a maximum of 7 hours (total) of graduate-level independent study and/or internship. Graduate internship or independent study projects must be research-based. In addition, two semesters of graduate seminar (BIOL 6655), one semester of Biological Data Analysis (BIOL 6764), and one semester of Principles of Biological Research (BIOL 5705) are required. The Biology MS also requires the preliminary exam, a research proposal defense and a research thesis defense.

- BIOL 6655 - Seminar

Financial Assistance

Financial aid for graduate students may be available from university and/or state fellowships, research assistantships sponsored by individual faculty members and teaching assistantships. Teaching assistantships are available on a competitive basis through application. Students should refer to the department web site for information on how to apply for a teaching assistantship.

Contact the Office of Financial Aid for information about fellowships, or the Graduate MS Program Director for information about research and teaching assistantships.

Business Administration -- Health Administration MBA

Program Director: Errol L. Biggs

Telephone: 303-315-8851

E-mail: errol.biggs@ucdenver.edu

Faculty

Professors:

Heidi Boerstler, PhD/JD, Yale University/University of Denver

Peter Bryant, PhD, Stanford University

C. Marlena Fiol, PhD, University of Illinois-Urbana-Champaign

Bruce Neumann, PhD, University of Illinois

Edward O'Connor, PhD, University of Akron

Associate Professors:

Deborah Kellogg, PhD, University of Southern California

Stephen Ross, MD, University of North Carolina

Instructors:

Errol Biggs, PhD, Pennsylvania State University

Admission Process

Requirements for Admission

Selection of students is a multi-step process. When making application to the program for the MBA-HA, candidates should send their applications to:

Graduate Admissions
Graduate School of Business Administration
University of Colorado Denver
Campus Box 165, P.O. Box 173364
Denver, CO 80217-3364

Application Requirements

- complete the application for graduate admission, parts I and II, and submit by published deadlines
- send two (2) letters of recommendation from professional or academic acquaintances who are familiar with the applicant's academic/professional competence
- send required GMAT scores directly to the graduate office from the Educational Testing Service. When registering for the GMAT, use code MPB-OG-78. GRE scores will also be considered.
- pay the appropriate application fee
- send two (2) official transcripts directly from each school, college or university previously attended past high school. A minimum baccalaureate degree is required.
- include answers to the four essay questions

- document any experience in the field of health services administration (preferred but not required)
- complete a personal interview with the health administration committee

Admission to the MBA-HA degree program is on a competitive basis. Therefore, these admission criteria represent minimum entrance qualifications expected of all students.

For further information, brochures and application materials, contact the Business School's Graduate Program in Health Administration, University of Colorado Denver, 303-315-8200.

Graduate Program in Health Administration

The graduate program in health administration is consistently ranked as a top program in the United States and attracts students with a variety of backgrounds and experience levels, which further enriches the classroom experience. The HA program is accredited by the Commission on Accreditation of Healthcare Management Education. The program is the only such program in the Rocky Mountain region and was started in 1968. Full-time faculty with distinguished research records and a select group of practicing managers provide students with the latest thinking on the most important health issues.

Degree Requirements

The curriculum of the MBA with an emphasis in Health Administration is a synthesis of management concepts and techniques that are applicable to any economic organization, and tools that can be specifically applied to health services systems. The program emphasizes skills that strengthen basic analytic and decision-making processes used by top level managers in selecting broad strategies and by junior managers in administering sub-units in healthcare organizations.

Students enrolled in the Master of Business Administration with an emphasis in Health Administration must complete a minimum of 51 semester hours of graduate-level course work to receive their degree. The curriculum is based on a series of structured learning sequences. Most of the courses are available in the evening to enable working students to pursue the degree on a part-time basis. The specific course requirements are as follows:

MBA Core (27 hours)

- BUSN 6521 - Managing Individuals and Teams (Health Section)
- BUSN 6530 - Data Analysis for Managers
- BUSN 6541 - Legal and Ethical Environment of Business (Health Section)
- BUSN 6550 - Analyzing and Interpreting Accounting Information
- BUSN 6560 - Marketing Management
- BUSN 6621 - Applied Economics for Managers (Health Section)
- BUSN 6630 - Management of Operations
- BUSN 6640 - Financial Management
- BUSN 6711 - Strategic Management (Health Section)

Health Administration Core (15 hours)

- HLTH 6010 - Health Care Systems
- HLTH 6040 - Health Care Financial Management
- HLTH 6070 - International Health Policy and Management
- HLTH 6911 - Health Field Studies
- DSCI 6440 - Quality and Process Improvement

Health Administration Information Technology Elective (3 hours)

Select 1 of the following courses:

- HLTH 6071 - Introduction To Health Information Technology
- HLTH 6072 - Fundamentals of Health Information Technology Management

Health Administration Electives (6 hours)

Select 2 of the following courses:

- HLTH 6055 - Transformational Leadership/Transforming Organizations
- HLTH 6075 - International Health Travel Study
- HLTH 6740 - Profiles in Health Care
- MGMT 6803 - Visionary Leadership

Specialized Tracks in the MBA with an Emphasis in Health Administration

Each track carries its own specific course requirements. To provide a variety of perspectives and experiences within a specific area of health administration, each track includes courses that span various departments within the Business School, other schools at CU Denver, and other University of Colorado campuses.

- International Health Management and Policy Track
- Financial Management Track
- Health Information Technology Management Track

Notes and Restrictions

Students admitted into the MBA with an emphasis in Health Administration must meet with a graduate advisor before they register for their first semester. Call 303-315-8200 to schedule an appointment. This is important to increase awareness of the sequencing of course offerings.

Administrative Residency. An administrative residency is optional but recommended for students with limited healthcare experience. The program faculty provide assistance to students in securing the residency, as well as regular consultation during the residency period. The program has been very successful in placing graduates in administrative residencies.

Length of program. A maximum of five years and one semester is allowed to complete the Health Administration program.

Business Administration MBA

Program Director: Dennis Murray

Telephone: 303-315-8419

E-mail: Dennis.Murray@ucdenver.edu

Faculty

Professors:

Marcelle Arak, PhD, Massachusetts Institute of Technology
Heidi Boerstler, PhD/JD, Yale University/University of Denver
Jean-Claude Bosch, PhD, University of Washington
Wayne Cascio, PhD, University of Rochester
Elizabeth Cooperman, PhD, University of Georgia
Lawrence Cunningham, DBA, University of Tennessee
E. Woodrow Eckard, PhD, University of California-Los Angeles
C. Marlena Fiol, PhD, University of Illinois-Urbana-Champaign

James Gerlach, PhD, Purdue University
Blair Gifford, PhD, University of Chicago

Jahangir Karimi, PhD, University of Arizona
Susan Keaveney, PhD, University of Colorado
Gary Kochenberger, PhD, University of Colorado
Dennis Murray, PhD, University of Massachusetts-Amherst
Bruce Neumann, PhD, University of Illinois
Edward O'Connor, PhD, University of Akron
John Ruhnka, JD/LLM, Yale School of Law/Cambridge University
Dean Taylor, PhD, University of Chicago
Clifford Young, PhD, University of Utah

Associate Professors:

Ajeyo Banerjee, PhD, University of Massachusetts-Amherst
Kenneth Bettenhausen, PhD, University of Illinois-Urbana-Champaign
Kang Rae Cho, PhD, University of Washington
Gary Colbert, PhD, University of Oregon
Carol Dee, PhD, Louisiana State University
David Forlani, PhD, University of Minnesota
Dawn Gregg, PhD, Arizona State University
Deborah Kellogg, PhD, University of Southern California
Sarah Koovor-Misra, PhD, University of Southern California
Vick Lane, PhD, University of Washington
Michael Mannino, PhD, University of Arizona
L. Ann Martin, PhD, University of Minnesota
Madhavan Parthasarathy, PhD, University of Nebraska
Ronald Ramirez, PhD, University of California-Irvine

Michael Roberts, PhD, Georgia State University
Judy Scott, PhD, University of California-Irvine
Manuel Serapio, PhD, University of Illinois
Marlene Smith, PhD, University of Florida
Steven Walczak, PhD, University of Florida
Zhiping Walter, PhD, University of Rochester
Jian Yang, PhD, Texas A&M University

Assistant Professors:

David Chandler, PhD, University of Texas -- Austin
Vinit Desai, PhD, University of California at Berkeley
Yufeng Han, PhD, Washington University
Stephanie Johnson, PhD, Rice University
Mary Malina, PhD, University of Colorado
Takeshi Nishikawa, PhD, Texas Tech University
Reina Ray, PhD, Indiana University
Craig Sisneros, PhD, Arizona State University
Traci Sitzmann, PhD, University of Tulsa
William Strawser, PhD, Texas A&M University
Cheng Yong Tang, PhD, Iowa State University

Senior Instructors:

John Byrd, PhD, University of Oregon
Ji Chen, MS, University of Colorado
Elizabeth Connor, MS, Colorado State University
Michael Harper, PhD, Rensselaer Polytechnic Institute
Robert Hockenbury, MS, University of Houston
Barbara Pelter, PhD, University of California-Davis
Mary Lee Stansifer, PhD, Northwestern University
Eric Thompson, MS, University of Colorado

Instructors:

Halley Ballew, MS, University of Kansas
Joshua Bernhard, MS, Iowa State University
Errol Biggs, PhD, Pennsylvania State University
Francisco Conejo, PhD, University of Otago New Zealand
John Daley, PhD, University of Washington
Linda Fried, JD/LLM, University of Miami
Wendy Guild, PhD, Massachusetts Institute of Technology
Barry McConnell, MBA, University of Colorado
Peter Max Miller, MA, Farleigh Dickenson University
Jeffrey Nystrom, MS, University of Colorado
Marie Owens, MBA, University of Montana
Eric Reiner, MBA, Louisiana State University
David Ruderman, MBA, University of Colorado
Roger Stace, MS, Curtin University of Technology, Australia

Cindy Sutfin, MS, University of Colorado
Emily Vera, MS, University of Colorado

The Master of Business Administration (MBA) program provides a general background in management and administration. This background enables the student to have the breadth of exposure and depth of knowledge required for an advanced-level management career. The program is devoted to developing the concepts, analytical tools and communication skills required for competent and responsible administration of an enterprise viewed in its entirety, within its social, political and economic environment.

The professional MBA program allows the scheduling of classes with maximum flexibility so students can progress through the program at their own pace, by taking as little as one class per semester or as many as five classes per semester, at times that are convenient with their work schedule. The program can be completed in as little as 16 months or as long as five years plus one semester.

Online courses add additional flexibility. Students may complete all degree requirements online, or combine online and campus courses to broaden the choice of electives or to fit a business travel schedule or personal learning style. Choice of online electives is limited.

The MBA program is also available in different configurations: 11-Month (full time, see relevant section), Health Administration and the Executive MBA (see relevant section). All MBAs have the same curriculum requirements; they differ only in their focus, the flexibility of course scheduling, and the time required to complete the program. The 11-Month and Executive MBAs are lockstep programs (no open electives, no specialized tracks), where students form a cohort and complete all program requirements together. No course transfers, waivers or substitutions are permitted.

Program Requirements

Core Requirements

- BUSN 6520 - Managing Individuals and Teams
- BUSN 6530 - Data Analysis for Managers
- BUSN 6540 - Legal and Ethical Environment of Business
- BUSN 6550 - Analyzing and Interpreting Accounting Information
- BUSN 6560 - Marketing Management
- BUSN 6610 - Information Systems Management and Strategy
- BUSN 6620 - Applied Economics for Managers
- BUSN 6630 - Management of Operations
- BUSN 6640 - Financial Management
- BUSN 6710 - Strategic Management

Electives

International Business elective (3 semester hours)

Free electives (15 semester hours)

Total: 48 Hours

Notes and Restrictions:

Core Substitution. Students with extensive and comparable course work in a particular core subject area may petition to substitute a higher-level graduate course on the basis of prior undergraduate or graduate course work taken at a regionally accredited college or university for the corresponding core class. This does not waive the 48-hour requirement. If a core course is substituted, another graduate level course in the same functional area must be used as a substitute so that the student completes a total of 48 semester hours.

International Elective. One 3-hour course with an international focus must be completed. Contact a graduate advisor or refer to a current MBA degree plan for a complete list of options.

Electives. The professional MBA curriculum allows for 15 semester hours of elective credit, which can be chosen from graduate-level courses offered by the Business School, except BUSN courses numbered below 6800. Additional graduate-level course work completed at the Denver campus outside the Business School may be applied to the MBA degree, but only with prior written approval of the MBA program director.

Note: Electives for the 11-Month and Executive MBA programs are pre-selected for all students.

MBA Specializations

Graduate students will have an opportunity to take specialized tracks within the professional MBA program by completing a pre-specified program of elective courses. The following 16 specializations are available:

- Bioinnovation and Entrepreneurship
- Business Intelligence
- Business Strategy
- Change Management
- Decision Sciences
- Enterprise Technology Management
- Entrepreneurship
- Finance
- Human Resources Management
- Leadership
- Information Systems
- International Business
- Managing for Sustainability

Marketing
Risk Management and Insurance
Sports and Entertainment Management

For additional information about the professional MBA program, contact a graduate advisor at 303-315-8200.

Business Administration: 11-Month MBA

Program Director: Gary Colbert

Administrative Director: Debbie Follenweider

E-mail: 11-monthMBA@ucdenver.edu

Telephone: 303-315.8800

Website: www.business.ucdenver.edu/11-MonthMBA

The 11-Month MBA is an accelerated full-time program that brings academically superior students together with select research and teaching faculty. The program enables students to focus their energies in a concentrated, total-immersion program of study earning a nationally accredited, 48-semester-hour MBA degree in just under a year.

The 11-Month MBA consists of five eight-week terms, three courses per term, plus a two-week international business course abroad. In addition to a minimum of 18 hours of class time each week, the 11-Month MBA students spend an average of 30 hours a week on homework. Students should expect a minimum time commitment of 48 hours per week to successfully complete this program.

Admission and Application Process

The admissions committee considers each candidate's entire record of achievement demonstrated through academic transcripts, GMAT scores, essays, letters of recommendation, personal interviews (if needed, will be scheduled at the discretion of the admission committee), work experience and extracurricular and community activities.

Previous Education

Applicants' complete academic records, including GPAs and previous course work are considered. Undergraduate degrees do not have to be in business, but they must be from regionally accredited colleges or universities.

Testing

The GMAT is a requirement for application to the 11-Month MBA program and cannot be substituted with other standardized examinations. If you take the GMAT more than once, we will evaluate your application using the highest GMAT score. The GMAT score for students admitted into the 11-Month MBA program has averaged around 600. Students must score a minimum 500 to be considered for admission to the 11-Month MBA program. The GMAT website is www.mba.com.

The 11-Month MBA also requires a highly developed proficiency in written and oral English. International applicants whose first language is not English must take the TOEFL or IELTS exam and earn a minimum score of 575 (PBT)/ 232 (CBT)/ 90 (IBT) TOEFL or 6.5 IELTS to be considered for admission to the 11-Month MBA program. Information on taking the TOEFL or IELTS can be obtained by visiting www.ets.org and www.ielts.org.

Work Experience

Students in the 11-Month MBA program have an average of six years of work experience. However, experience ranges from the recently graduated to more than 30 years in business. Professional experience strengthens the application, since it adds relevance and depth to the

learning process and enables candidates to contribute to and benefit from the knowledge of fellow classmates in the accelerated time frame of the program.

Applications

The following are required for consideration of admission to the program.

- completed application for graduate admission, parts I and II, submitted by published deadlines and fee (domestic or international as appropriate)
- two (2) letters of recommendation from professional or academic acquaintances who are familiar with the applicant's academic/professional competence
- GMAT scores taken in the last five years sent directly to the graduate admissions office from the Educational Testing Service. When registering for the GMAT, use code MPB-OG-65
- two (2) official transcripts from each school, college or university previously attended past high school, sent directly to the graduate admissions office. A minimum baccalaureate degree is required
- include answers to the four essay questions demonstrating commitment to an accelerated MBA program
- a resumé outlining work experience
- for international students, a minimum official score of 575/232/90 TOEFL (TOEFL school code: 4875) or 6.5 IELTS is required to apply -- test scores are valid for two years after test date

The priority date for domestic applications is June 15 (May 15 for international students). Applications (for domestic students) and current fee information are available at www.business.ucdenver.edu/11-monthMBA.

All of the required admission materials should be sent to:

University of Colorado Denver
The Business School
Graduate Admissions
Campus Box 165, P.O. Box 173364
Denver, CO 80127-3364

For further information, brochures and application materials, contact the 11-Month MBA program at 303-315-8800 or 11-monthMBA@ucdenver.edu.

The 11-Month MBA uses a rolling admission system. The committee reviews applications when they are complete in all respects, including transcripts, GMAT scores and letters of recommendation. Candidates are encouraged to submit their application as early in the process as possible. Completed applications are reviewed until early August; applications received after June 15 will be reviewed on a space-available basis. International applicants should have their completed applications in by May 15, to leave them sufficient time for visa and travel arrangements if they are admitted.

A personal interview may also be required for admission to the 11-Month MBA.

11-Month MBA Award/Loans

General financial assistance is available for qualified students. Students should apply directly to the Denver campus Office of Financial Aid. Call 303-556-2886 for information and forms. In addition, an 11-Month MBA merit-based award is available only to students in the 11-Month MBA. Other Business School scholarships are also available to all MBA students. Information available at www.business.ucdenver.edu/11-monthMBA.

Degree Requirements

Students in the 11-month MBA complete 10 MBA core courses, one international business course (conducted abroad) and five special topics courses. All courses require that students work in teams. Due to the program's cohort structure, individual elective options are not available to 11-month MBA students. **No courses may be waived, substituted or transferred into the program.** If a student finds it necessary to leave the accelerated program, credits already earned may be transferred to the professional MBA program on campus.

MBA Core Courses

- BUSN 6520 - Managing Individuals and Teams
- BUSN 6530 - Data Analysis for Managers
- BUSN 6540 - Legal and Ethical Environment of Business
- BUSN 6550 - Analyzing and Interpreting Accounting Information
- BUSN 6560 - Marketing Management
- BUSN 6610 - Information Systems Management and Strategy
- BUSN 6620 - Applied Economics for Managers
- BUSN 6630 - Management of Operations
- BUSN 6640 - Financial Management
- BUSN 6710 - Strategic Management

Total: 30 Hours

International Course Abroad

The international course, which involves travel abroad, is completed as an all-day, two-week intensive course.

Special Topics Courses

The special topics courses, revised each year, are selected to create a broad understanding of the most current business issues. These requirements are subject to change.

Chemistry MS

► Graduate School Rules apply to this program

Requirements for Admission

Students must meet the Downtown Campus Graduate School admission requirements with specific chemistry requirements as follows:

- Undergraduate GPA of at least 3.0.
- Undergraduate major in chemistry essentially equivalent to the one offered at CU Denver (see the undergraduate requirements), including two semesters of organic, analytical and physical chemistry with laboratories and one semester of inorganic chemistry. No student will be admitted to the graduate program who is not within two classes of meeting the undergraduate requirements.
- GRE examination is recommended, as is the advanced chemistry GRE examination.
- International students have additional admission requirements concerning immigration status, proof of financial responsibility and acceptable TOEFL scores.
- Failure to meet the full admission standards may lead to provisional admission.

Prospective students are encouraged to contact the graduate program director or visit the chemistry department website for additional details concerning the chemistry program, admission procedures, financial assistance and faculty research interests.

General Program Requirements

At the heart of the graduate program is a set of four core graduate courses in the fields of analytical, inorganic, organic and physical chemistry. A student must qualify in order to register for any core graduate class, either by passing a qualifying examination in that field or by passing the equivalent undergraduate class in that area at CU Denver with a grade of *B* (3.0) or better. All entering students are required to qualify in all four core fields. The qualifying requirements must be completed during the first year in the graduate program. Individual core classes may have additional prerequisites.

Depending on the program option that she/he selects, a student will be required to pass either three (Plan I) or all four (Plan II) of the graduate core courses with no grade in a core course below *B-* (2.7).

The remaining course work for the degree will consist of regular graduate offerings in chemistry, a limited number of which may be substituted by approved classes in related fields. In particular, students interested in interdisciplinary areas, such as biochemistry or environmental chemistry, are encouraged to take cognate courses outside the chemistry department. The chemistry graduate program director must approve in advance any graduate class taken outside the department that is to count toward the degree. All students are required to annually submit an updated program plan for approval and to have their progress evaluated by the graduate program director.

Specific Degree Requirements

There are two options for obtaining a master's degree from the Department of Chemistry: Plan I, the thesis option, and Plan II, the course work emphasis option. All students must complete at least 3 semester hours of master's report (CHEM 6960). A student is allowed to participate in the thesis option only after the successful completion of the master's report with the proposed advisor, and upon the mutual agreement of both the student and advisor that the student is prepared to work on a master's thesis. Students who select the course work emphasis option may petition to have up to 3 additional semester hours of master's report research substitute for an equivalent number of course work hours.

Plan I. Thesis Option

Plan I is a research-oriented program involving a minimum of 30 semester hours with the following requirements:

- 21-23 semester hours of formal course work, including three of the four graduate core courses
- 4-6 semester hours of CHEM 6950, Master's Thesis research; successful completion of the thesis research includes the presentation of the results at a departmental seminar
- 3 semester hours of CHEM 6960, Master's Report research
- a grade of *B-* (2.7) or better in all courses completed; *B-* (2.7) or better in all core courses
- a cumulative GPA of 3.0 or better in all courses taken as a graduate student
- an acceptable formal thesis consistent with the guidelines of the Graduate School
- successful oral defense of the master's thesis before a committee of at least three graduate faculty members, two of whom must be tenure track faculty members in the chemistry department
- compliance with all Graduate School Rules
- all work must be completed within five years of completion of the first graduate class in the department

Plan I thesis research must be conducted under the direct supervision of a tenure-track faculty member of the Downtown Campus Department of Chemistry. Plan I students must take a minimum of 15 semester hours of formal course work in chemistry at the 5000 level or above. Students may petition the graduate program director in advance for permission to take one or two courses at the graduate level outside of chemistry that would count toward the requirements for an MS in chemistry.

Plan II. Course Work Emphasis Option

Plan II is a course work-oriented program involving a minimum of 33 semester hours with the following requirements:

- 27-30 semester hours of formal course work, including all four graduate core courses
- at least 3 (but not more than 6) semester hours of CHEM 6960, Master's Report, research
- a grade of *B-* (2.7) or better in all courses completed; *B-* (2.7) or better in all core courses
- a cumulative GPA of 3.0 or better in all courses taken as a graduate student

- a final research report
- presentation of the research project in a final seminar
- successful defense of the project before a committee of at least three graduate faculty members, one of whom must be a tenure-track faculty member in the chemistry department
- compliance with all Graduate School Rules
- all work must be completed within five years of completion of the first graduate class in the department

A Plan II student may petition the graduate program director to substitute up to 3 semester hours of master's report (CHEM 6960) research, beyond the required minimum, for an equivalent number of semester hours of formal course work. Approval will be perfunctory for research performed with the support and under the direct supervision of a faculty member in the Department of Chemistry. Plan II students must take a minimum of 24 semester hours of formal course work in chemistry at the 5000 level or above. Students may petition the graduate program director in advance for permission to take up to two courses at the graduate level outside of chemistry that would count toward the requirements for an MS in chemistry.

Civil Engineering MS and MEng

- Graduate School Rules apply to these programs

Graduate

Degree Programs

The civil engineering graduate program is designed for both full-time and part-time students who want to advance their academic and professional skills in civil engineering and related areas. Many students are full time, while many also work full-time jobs and complete evening classes. Depending on a student's pace, the master's program takes 2-4 years to complete (on average). All graduate courses are offered in the afternoons, evenings or on Saturdays. Some courses, including all GIS classes, are offered online.

Specialty Areas:

Master of Science (MS)

- Environmental and Sustainability Engineering
- Geographic Information Systems (GIS)
- Geotechnical Engineering
- Hydrologic and Hydraulic Engineering
- Structural Engineering
- Transportation Engineering

Master of Engineering (MEng)

- Geographic Information Systems (GIS)
- Sustainable Infrastructure
- Transportation Systems

Degree Requirements

Two MS degree programs are available.

Plan I - Master's Thesis: This plan requires 24 semester hours of graduate-level course work and 6 semester hours of master's thesis credit.

Plan II - Master's Report: This plan requires 27 semester hours of graduate-level course work and 3 semester hours master's report credits.

Master of engineering students must follow Plan 2 above. Additionally, of those 30 semester hours, at least 15 hours must be completed with CE classes, including the master's report. The remaining hours may be completed in related disciplines that supplement the chosen area of study. Both the MS and MEng degrees require satisfactory completion of a written comprehensive exam and an oral defense of the master's thesis or master's report to a committee of at least three graduate faculty. Every graduate student must also satisfy the degree

requirements of the Graduate School on the Denver campus, specified in the Information for Graduate Students chapter of this catalog. Both the MS and the MEng degree programs must be completed within seven years of the date the student begins the degree program.

Courses for both the MS and MEng degree programs are selected by mutual agreement of the student and his/her faculty advisor after admission to the degree program. The advisor may also specify undergraduate courses that must be completed before starting graduate course work, but these will not count toward the semester hour requirements for the degree. The student's thesis or report topic must also be approved by the faculty advisor.

Requirements for Admission

GPA and GRE

Students with GPA's between 3.0 and 2.75 may be admitted provisionally, but are encouraged to submit official GRE scores to support their applications. Non-international applicants not wishing to take the GRE may gain admittance by registering as a nondegree student and completing three classes with a GPA of 3.25.

Transfer Credit:

Master's students may transfer up to 9 semester hours from another institution toward their master's degree, if approved by their advisor.

Program Prerequisites:

Prerequisite classes are in addition to the 30 semester hours needed to complete a master's degree, as they are necessary background information that is usually included in an engineering bachelor's program.

Students may complete prerequisite classes either before or after being admitted to a degree program. However, applicants with too many prerequisites may not gain admission. For applicants completing prerequisites after admission, all prerequisite courses must be completed before 12 of the 30 master's semester hours are complete.

Requests for applications for graduate study in civil engineering should be addressed to

CU Denver Department of Civil Engineering
Campus Box 113
P.O. Box 173364
Denver, CO 80217-3364.

Applicants who are not citizens or permanent residents of the United States must apply through the Office of International Admissions, Campus Box 185, P.O. Box 173364, Denver, CO 80217-3364. All applicants for admission must submit complete credentials as outlined in the instructions that accompany the application materials.

Communication MA

► Graduate School rules apply to this program

The master of arts in communication is a generalist degree designed to enhance students' intellectual and professional growth through the understanding and practice of effective communication. The degree is structured both to build a solid foundation and to allow students to blend research, theory and practice to meet the challenges of the twenty-first century.

Degree Requirements

The MA degree in communication requires the completion of 33-34 hours of graduate course work (5000 level or above). As explained below, students have the option of taking 6 hours of 4000-level courses. In this situation, a student will take 27 hours of graduate credit and 6 hours of 4000-level (undergraduate) course work. The requirements for course work are as follows:

Required Course

- COMM 6013 - Introduction to Graduate Work in Communication
(recommended to be taken the first semester of graduate course work; offered only in the fall semester)

Total: 3 Hours

Methods Courses

Most methods courses are offered every other year. Students also wish to pursue a PhD may elect to take additional methods classes in or outside the department.

Choose one:

- COMM 5011 - Research Methods: Quantitative
- COMM 5022 - Critical Analysis of Communication
- COMM 5205 - Empirical Research Methods for Communication
- COMM 5221 - Research Methods: Qualitative
- COMM 5710 - Topics in Communication

Total: 3 Hours

Graduate Seminars

In addition to the above core requirements, students must take five graduate seminars from the Department of Communication. Graduate seminars are 5000- or 6000-level courses.

Total: 15 Hours

Electives

Students must complete four electives. A minimum of two of these electives must be at the 5000 or 6000 level; the remaining two may be at the 4000 level. At least two of the four electives must be communication courses; the remaining two electives may be taken from outside of the Department of Communication.

Total: 12 Hours

Thesis

Students wishing to complete a thesis must register for at least 4 semester hours of thesis work, and will need at least 34 credits to graduate. Credit for a thesis may substitute for one elective course requirement.

Total: 4 Hours

Students must receive a grade of *B* or higher in all courses that are applied to the MA degree.

All students must pass a comprehensive examination at the end of course work.

Degree Total: 33-34 Hours

Computer Science MS

- ▶ [Graduate School Rules](#) apply to this program

General MS Degree Requirements

In addition to the basic requirements of the university, the Department of Computer Science and Engineering requires master's degree candidates to complete a program of study consisting of at least 30 semester hours of graduate level computer science courses while maintaining a grade point average of at least 3.0. According to the Graduate School Rules, graduate courses with grades below B- cannot be applied toward the completion of the graduate degree. With prior approval by the Graduate Committee a student may substitute up to nine semester hours with graduate mathematics or other engineering courses.

Students need to submit an approved Plan of Study to the department during the first semester of their admission. An academic advisor will consult with students to develop a Plan of Study. Students may choose **Plan I** (Thesis), **Plan II** (MS Project), or **Plan III** (Course Only). Both Plan I and II require successful defense of thesis or project in student's graduating semester.

- **Plan I-Thesis:** Students take 24 hours of graduate course work, and additionally write and defend a thesis, which counts for 6 hours of graduate thesis work.
- **Plan II-MS Project:** Students take 27 hours of graduate course work, and additionally write and defend a MS project report, which counts for 3 hours of graduate MS project work.
- **Plan III-Course Only:** Students take 30 hours of graduate course work consisting of a minimum of four out of five Category A courses, and four category B courses. In the final semester, graduating students must submit a final written research report on a subject specified by the CSE Faculty Committee.

Students are allowed a maximum of 3 credit hours of CS Independent Study (except in Plan II, course-only option).

Students may only take graduate engineering or graduate mathematics courses that are offered toward an MS degree in a degree-granting department, while at least 21 hours must be CS. It is advisable that students get prior approval of a graduate CS advisor before taking any course that does not have a CSCI prefix. For example, courses offered through Continuing Education are not counted toward an MS degree in Computer Science.

The only exception for a student to take a graduate course from any other department is when the course satisfies all of the following conditions:

1. It appears in a graduate program.
2. It is taken instead of 3 hours of CS Independent Study.
3. It is approved by the CS Graduate Committee.

No more than 6 credit hours may be in the form of on-line courses.

Adequate Progress toward MS in Computer Science Degree

Students are expected to finish the MS degree program within five years. Candidates for the MS degree may not get credit for a course taken longer than five years before the date on which the degree is to be granted.

Students who do not enroll for any course work relevant to computer science in a given semester (summer semesters excluded) must supply the Department of Computer Science and Engineering with a written statement describing the reason for the inactivity. Students who are inactive for three consecutive semesters (summer semesters excluded) will be removed from the program, and must re-apply for admission.

Students may choose either Plan I (thesis) or Plan II (MS project) or Plan III (course only option).

For up-to-date information, please refer to the current graduate handbook from the [CSE department website](#) under Degree Programs.

Counseling MA

Program Leader: Faculty Lead

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Website: www.ucdenver.edu/counseling

Faculty

Information about faculty in the Counseling program is available online at www.ucdenver.edu/education/alps.

Degree

The master of arts degree in Counseling program prepares professionals for community/mental health agencies, private practice and public schools. Students should obtain faculty advising regarding professional requirements.

All programs consist of 63 semester hours (66 for the multicultural/diversity strand). Core requirements that are common to all areas of study are followed by courses specific to each program. All programs require a practicum (150 clock hours) and an internship (600 clock hours). For most students, the master's degree is a three-year program with course work for two years followed by a year of practicum and internship. All beginning students enroll in CPCE 5010 and CPCE 5810.

The clinical mental health counseling, school counseling and couple and family therapy programs are nationally accredited by CACREP, the Council for the Accreditation of Counseling and Related Educational Programs.

All students are expected to have online computer capability for communication and instructional purposes. For students in off-campus programs, some courses may be offered via computer technology.

Admission Requirements

Successful applicants to the Counseling program will have obtained a minimum 2.75 undergraduate GPA and will score at least 290 (combined) on the verbal and quantitative sections of the Graduate Record Exam (GRE) or at least 396 on the Miller Analogy Test (MAT). Also, applicants will submit a current resume, a letter of intent, three letters of recommendation (at least 2 academic letters are strongly advised) and additional required materials. Applicants meeting these minimum standards will be invited to a half-day group interview that involves program orientation, small group interviews, a writing assignment and a group exercise.

A prerequisite course in basic statistics (undergraduate level) is required prior to enrollment in the program.

Application materials are available at

https://soa.prod.cu.edu/degreeprog/applyDEGREEPROG_CUDEN/login.action. All materials must be submitted online by the appropriate deadline: September 15 for spring semester; January 15 for summer and fall semesters. Application materials include the following:

- part I of the application for admission
- tuition classification form
- \$50 application fee (make checks payable to the University of Colorado Denver)
- letter of intent
- three letters of recommendation - at least 2 academic letters strongly advised
- two official transcripts from each higher education institution attended (in original sealed envelope)
- official GRE or MAT scores sent directly to the University of Colorado Denver (if you do not already hold a graduate degree; see CPCE application checklist)
- oath and consent
- fingerprint affidavit

Matriculation Requirements

Counseling students must earn at least a B in skills-oriented courses (CPCE 5100, 5160, 6140, 7100, 5910, 5930) or must repeat these courses until they do so. In addition, all students must make a formal case presentation in CPCE 5930 (internship) to demonstrate their clinical knowledge. Students must also take a national comprehensive examination (after 30 semester hours). Students may choose to conduct research and submit a thesis (research conducted under faculty advisement) instead of taking the national comprehensive examination.

Program Areas

Students accepted into the Counseling program follow one of the three concentration areas. The clinical mental health counseling program follows state licensure requirements for licensed professional counselor; the couple and family therapy program follows licensure requirements designated by the state of Colorado of licensure as a marriage and family therapist; and the school program follows both the licensed professional counselor licensure and state department of education certificate as a school counselor requirements.

Program Areas

Counseling Core

(required in all program areas)

- CPCE 5010 - Counseling Theories
- CPCE 5100 - Techniques of Counseling
- CPCE 5110 - Group Counseling
- CPCE 5150 - Family Therapy Theory
- CPCE 5330 - Counseling Issues and Ethics
- CPCE 5400 - Career Development

- CPCE 5810 - Multicultural Counseling Issues for Individuals and Families
 - EPSY 6200 - Human Development Over the Life Span
 - RSEM 5110 - Introduction to Measurement
 - RSEM 5120 - Introduction to Research Methods
- National Comprehensive Exam to be taken after the CPCE core classes are completed.

Total: 30 Hours

Additional Requirements for Program Area One: Clinical Mental Health Counseling (MA)

- CPCE 5160 - Techniques in Family Therapy
 - CPCE 5280 - Addictions Counseling
 - CPCE 5820 - Strategies of Agency Counseling
 - CPCE 6250 - Mental Health Diagnosis
 - CPCE 7100 - Advanced Theories and Techniques in Psychotherapy
- Two Additional Electives (6 semester hours)

Total: 21 Hours

Additional Requirements for Multicultural/Diversity Strand in Clinical Mental Health Counseling

- CPCE 5160 - Techniques in Family Therapy
- CPCE 5280 - Addictions Counseling
- CPCE 5820 - Strategies of Agency Counseling
- CPCE 5830 - Special Topics Gender & Sexual Orientation
- CPCE 6100 - Spiritual Dimensions of Counseling
- CPCE 6250 - Mental Health Diagnosis
- CPCE 6810 - Advanced Multicultural Counseling
- CPCE 7100 - Advanced Theories and Techniques in Psychotherapy

Total: 24 Hours

Additional Requirements for Program Area Two: Public School Counseling Certificate (MA)*

- CPCE 5280 - Addictions Counseling
 - CPCE 5425 - Developing & Implementing a School Counseling Program: ASCA
 - CPCE 5815 - Introduction to School Counseling
 - CPCE 5915 - Practicum in School Counseling
 - CPCE 6140 - Counseling Children, Adolescents and Their Parents
 - CPCE 6230 - Developmental Counseling in Schools: Prevention & Intervention
 - CPCE 6250 - Mental Health Diagnosis
- Place Test is required for the Colorado Department of Education Certification for school counselors.

Total: 21 Hours

* 100 hour practicum is required in the schools (CPCE 5915). Three hundred of the 600 hours of internship must be in a concentrated environment. Full time experience consisting of at least a four-hour block of time each day is required. Students may not do their internship in their primary employment (agency or school setting). For school counseling, three hundred (300) hours of internship are needed at the middle and secondary level for a K–12 program. CPCE 5150, 6140 and 7100 are necessary for students to work with school-related family issues, individual counseling and children's counseling in practicum and internship.

Additional Requirements for Program Area Three: Couple and Family Therapy (MA)

- CPCE 5160 - Techniques in Family Therapy
- CPCE 5170 - Issues In Family Studies
- CPCE 5180 - Counseling Couples
- CPCE 6000 - Introduction to Sex Therapy
- CPCE 6140 - Counseling Children, Adolescents and Their Parents
- CPCE 6160 - Advanced Assessment: Theory and Treatment in Family Systems
- CPCE 6250 - Mental Health Diagnosis

Total: 21 Hours

*CPCE 5160 is necessary prior to internship in couple and family therapy; this course requires 10 hours of laboratory experiences working with youth.

Counseling Clinical Experiences

- CPCE 5910 - Practicum in CPCE
- CPCE 5930 - Internship in Counseling

Total: 12 Hours

Criminal Justice MCJ

- Graduate School Rules apply to this program

Program Director: Mary Dodge, PhD

Faculty

Professors:

Mary Dodge, PhD, University of California Irvine

Angela Gover, PhD, University of Maryland

Mark Pogrebin, PhD, University of Iowa

Eric Poole, PhD, Washington State University

Paul Stretesky, PhD, Florida State University

Associate Professors:

Callie Rennison, PhD University of Houston

Assistant Professor:

Lonnie Schaible, PhD, Washington State University

Senior Instructor:

Lucy Dwight, PhD, Pennsylvania State University

The master of criminal justice (MCJ) program is designed for students interested in comprehensive professional graduate education in the field of criminal justice. It is intended to develop in the student an in-depth understanding of the fields within criminal justice and of background material from supporting disciplines, which enables the student to adapt to many operational specializations.

As an academic and professional field of study, this program is dedicated to preparing men and women not only to administer the system as it presently exists—but also to evaluate, to analyze and to change—to become pioneers in accelerating the shaping of a rational and responsive criminal justice system.

To deal with this system effectively, research design capability must be developed along with the skills required for the ordering and analysis of empirical data. This course of study prepares the student to be an innovator in crime control and prevention through course work dealing with strategies and skills for promoting individual, organizational and social change.

MPA AND MCJ—General Information

Admission Requirements

1. Applicants must have a baccalaureate degree from a college or university of accredited standing, with a minimum GPA of 3.0. Two sets of official transcripts are required from all higher education institutions attended.
2. Applicants must provide three recommendations from qualified references. Recommendations may be from professors, employers and/or others acquainted with the prospective student's professional and/or academic work.
3. Applicants are required to take the GRE, the GMAT or the LSAT unless they meet the requirements for waiver. Standard graduate admission test scores are normally waived when the candidate already has a graduate degree in another field from an accredited institution. Other applicants may have test scores waived if they have an undergraduate GPA of 3.0 or better *and* they have *significant* post-baccalaureate professional employment in management or policymaking positions for a minimum of 10 years or the equivalent.
4. A current resume highlighting professional accomplishments and community involvement, a short essay stating educational and career goals, a declaration of program form, and an application fee are also required.
5. International applicants may have different admission requirements and should check with the Office of International Affairs. In particular, international students whose first language is not English are required to take the TOEFL or IELTS. A composite score of 6.5 on the IELTS, or a composite score of 80 on the TOEFL, with accompanying minimum IELTS or TOEFL subscore results, is required.

All application material and test scores should be sent to SPA, University of Colorado Denver, Campus Box 142, P.O. Box 173364, Denver, CO 80217-3364.

SPA will review applications as soon as they are complete. Master-level applicants generally receive notification of their admission status three weeks after all materials have been received in the office. The preferred deadlines listed below allow students to receive best consideration for scholarships, financial aid and course selection. *Students who do not meet the preferred deadline may still submit application materials until approximately one month before the start of classes and will be considered on a space-available basis.*

<i>Semester</i>	<i>Preferred Application Deadline</i>	<i>Final Deadline*</i>
Fall	March 15	August 1
Spring	October 15	December 1
Summer	March 15	May 1

*Final deadline does not apply to international students who should contact the Office of International Affairs for deadline information.

Provisional Admission

In exceptional cases, a student who does not otherwise meet the minimum requirements for admission may be admitted on provisional status if elements of their application suggest they may be able to succeed in the program. Students admitted on a provisional basis take two core

courses in their first semester, and must earn at least a B in each course. MPA students may select two of the following: PUAD 5001 , 5003 or 5004. MCJ students may select two of the following: CRJU 5001, 5002 or 5005. Based on their performance in these courses, a formal decision will be made concerning their admission into the program. Provisionally-admitted students may not take any other courses at SPA until they have been formally admitted to the program.

Nondegree Admissions

Students may register as nondegree students while developing their application packet. However, students are discouraged from taking multiple courses as a nondegree student if they hope to pursue a degree. No more than nine semester hours taken in the program as a nondegree student may be applied to the master's degree programs, with approval of an advisor. Nondegree student application forms are available in the Office of Admissions or online.

Transfer of Credit to SPA

Up to 9 semester hours of appropriate graduate work from an accredited college or university may transfer, if such credit was not applied to a completed degree.

Limitation of Course Load

The normal course load for a full-time student is 9 semester hours. A student who is employed full time may not carry more than 9 hours unless an excess load has been approved in advance by the faculty advisor.

Financial Assistance

Students in the master's degree programs are eligible for several types of financial assistance. Educational loans require application to the CU Denver Office of Financial Aid and completion of the FAFSA. A number of students secure internships or other part-time positions with local, state and federal agencies in the Denver metropolitan area. Scholarship assistance is available on a limited basis.

The school receives announcements for fellowships from various government organizations and actively seeks additional funding for student support in the form of internship positions and research assistantships.

Persons interested in applying for financial assistance should inquire in the SPA office. The deadline for current students is March 15 for the fall term. Prospective students seeking scholarship funds should have complete scholarship applications on file at the SPA office by the preferred application deadline for the semester they are requesting funds.

The Internship Program

An internship for the MPA and MCJ programs is required for students who have not had significant public, nonprofit or private-sector experience. The purpose of the internship is to continue the linkage between theory and practice that is the philosophical basis of SPA. The internships generally involve part-time work. A maximum of three semester hours will be awarded for internship service. Great care is taken by the SPA to ensure that the internship experience meets the intellectual needs of the student. Placements have included the Governor's Office, Colorado General Assembly, Denver Mayor's Office, City of Denver, Denver Police

Department, Boulder Crime Lab, Western Governor's Association, the National Conference of State Legislatures, the Colorado Department of Public Health and Environment and the Denver Center for the Performing Arts.

Time Limit for Master's Degree

Master's degree students must complete all course work and degree requirements within six years of registration in their first course.

Degree Requirements

1. Graduate Study

The program leading to the MCJ degree requires a minimum of 36 semester hours of appropriate graduate study with an average of B (3.0) or better. No grade below C will be accepted for graduate credit. No more than 6 semester hours of independent study can be applied toward the degree.

2. Core Courses

The completion of the following core courses is required with a grade of B- or better:

- CRJU 5001 - CJ Systems, Policies/Practice
- CRJU 5002 - Criminological Theory
- CRJU 5003 - Research Methods
- CRJU 5004 - Statistics
- CRJU 5005 - Law & Society

Total: 15 Hours

3. Course Work

Students must complete a minimum of 27 semester hours of course work in criminal justice.

4. Criminal Justice Experience

Students who have not had criminal justice experience are required to complete CRJU 6910 (field study). A minimum of 240 hours of supervised work is required to earn 3 hours of credit. All required core courses must be completed before taking CRJU 6910.

5. Capstone

All MCJ students, except those pursuing the thesis option, must complete the capstone course (CRJU 5361) during the last semester of their degree program. All core classes must be completed before taking the capstone. Students admitted before spring 2009 may opt to take a written comprehensive exam in lieu of CRJU 5361.

- CRJU 5361 - Capstone Seminar
Students must receive the approval of both a faculty advisor and the director of the criminal justice program to complete a thesis for 3–6 semester hours in lieu of the advanced seminar.

Elective Courses

The courses listed below may be taken as electives for the MCJ degree:

- CRJU 5200 - Wrongful Convictions
- CRJU 5210 - Prisoner Reentry
- CRJU 5220 - The American Jury System
- CRJU 5250 - Criminal Offenders
- CRJU 5260 - Crime and Literature
- CRJU 5325 - Qualitative Methods for Criminal Justice
- CRJU 5410 - Victimology
- CRJU 5430 - Drugs, Alcohol and Crime
- CRJU 5510 - Contemporary Issues in Law Enforcement
- CRJU 5520 - Corrections
- CRJU 5530 - Community Corrections
- CRJU 5540 - Juvenile Justice Administration
- CRJU 5552 - Criminal Justice Ethics
- CRJU 5553 - Women and Crime
- CRJU 5571 - The Social Organization of Crime
- CRJU 5572 - Race, Crime and Justice
- CRJU 5574 - White Collar Crime
- CRJU 5575 - The Mentally Disordered Offender

MCJ Options

Domestic Violence Concentration/Graduate Certificate

A student may choose to complete a concentration in domestic violence as part of the MCJ or MPA degree, or the domestic violence program can be completed by non-degree students as a stand-alone graduate certificate. The program on domestic violence provides an interdisciplinary perspective on crime, the formulation of laws and codes, the criminal legal system and its intersection with women and violence. Students seeking a domestic violence concentration must complete 15 semester hours related to domestic violence, which are completed via intensive workshops that meet periodically throughout a two-year period.

For more information, contact Barbara Paradiso at barbara.paradiso@ucdenver.edu.

Requirements

Students take the four specified courses below and one elective.

- PUAD 5910 - Women and Violence: A Sociological Perspective
- PUAD 5920 - Psychology of Violence Against Women
- PUAD 5930 - Battered Women and the Legal System
- PUAD 5940 - Domestic Violence Social Change and Advocacy

Total: 15 Hours

Emergency Management and Homeland Security Concentration/Graduate Certificate

The graduate concentration in Emergency Management and Homeland Security is available as a concentration within the MPA and MCJ programs, or as a stand-alone certificate for non-degree students. This concentration, which requires 15 credit hours (5 courses) provides advanced education in the management of emergencies, hazards, disasters, and homeland security. For more information, contact Brian Gerber at brian.gerber@ucdenver.edu.

Requirements

Students take two of three required courses as well as three elective courses approved by their advisor. The emergency management and homeland security concentration/certificate allows students to choose electives organized in the following tracks: policy and management, spatial analysis and quantitative assessment, public safety, homeland security and justice or public and environmental health. Students may choose courses in one track to create a more focused concentration or pick from among the tracks to fulfill their elective course requirements.

- GEOG 5230 - Hazard Mitigation and Vulnerability Assessment
- PUAD 5650 - Disaster and Emergency Management Policies
- PUAD 5450 - Law of All-Hazards Management

Total: 15 Hours

The emergency management and homeland security certificate requires the completion of three electives chosen from a preapproved, multidisciplinary list of courses relevant to emergency management. Students may choose electives in one of three tracks: policy and management; spatial analysis, planning and quantitative assessment; or public safety, homeland security and justice.

Online Option

The master of criminal justice degree may be earned in the online format. Designed to serve students who are looking for a high-quality education, but who need an alternative to traditional classroom instruction, students may elect to do one or all of their courses online. This option allows students to complete the entire degree at a distance or to choose to come to campus for some courses while using an interactive online format for others.

Curriculum and Instruction MA

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Web site: www.ucdenver.edu/education/alps

Faculty

Information about faculty is available online at www.ucdenver.edu/education/alps

Areas of Study

Master of Arts in Curriculum and Instruction

Concentrations for Elementary Teachers: Science, Mathematics, or Mathematics/Science

Concentrations for Secondary Teachers: Science, Mathematics, and Social Studies

Curriculum and instruction (C&I) studies lead to an advanced master's degree in curriculum and instruction. All programs require 36 semester hours, including the C&I core or its equivalent. The core courses provide a sound basis in curriculum theory, teacher inquiry, appreciation of diversity and philosophical foundations. The various specializations allow teachers to focus in an area of interest.

Elementary teachers can select from concentrations in mathematics, science, or mathematics/science. Secondary teachers may choose concentrations in mathematics, science, or social studies.

Each of these programs is designed to prepare teachers to qualify for master certification from the National Board of Professional Teaching Standards, as well as prepare for licensure renewal with the Colorado Department of Education.

Education Core

- FNDS 5050 - Critical Issues in American Education
- RSEM 5080 - Research In Schools

Total: 6 Hours

Elementary Math and Science

24 semester hours of electives, chosen with advisor's approval (24 semester hours)

Elementary emphasis required course

- SECE 5500 - The Nature of Science

Total: 36 Hours

Science (Secondary)

- SECE 5340 - Multicultural Science Education
 - SECE 5350 - Issues and Problems in Science Education
 - SECE 5500 - The Nature of Science
 - SECE 5650 - Environmental Education
- 15 hours of electives in science or education chosen with advisor's approval

Total: 36 Hours

Mathematics (Secondary)

- SECE 5400 - Curriculum in Secondary Mathematics OR
- SECE 5410 - Advanced Methods and Strategies in Secondary Mathematics
- SECE 5401 - Assessment in Mathematics Education

Choose three:

- ELED 5416 - Math-Science Connections: Outdoor
 - SECE 5417 - Structure of Rational Numbers
 - SECE 5418 - Mathematical Modeling
 - SECE 5419 - Exploring the Structure of Geometry Using Technology
 - SECE 5420 - Teaching Mathematics to Low Achievers
 - SECE 5440 - Topics in Mathematics Education
- 12 hours of electives from the School of Education & Human Development or the mathematics department, chosen with an advisor's approval

Total: 36 Hours

Social Studies (Secondary)

Please contact an advisor in the School of Education & Human Development for advising.

Total: 36 Hours

Comprehensive Experience (COMPS)

C&I programs require each student to complete a master's comprehensive experience, known as COMPS, that consists of a project or research thesis completed in consultation with their faculty advisor. Details may be obtained from your faculty advisor.

Decision Sciences MS

Program Director: Marlene A. Smith

Telephone: 303-315-8421

E-mail: Ma.Smith@ucdenver.edu

Faculty

Professors:

Gary A. Kochenberger, PhD, University of Colorado Boulder

Associate Professors:

Deborah L. Kellogg, PhD, University of Southern California

Marlene A. Smith, PhD, University of Florida

Assistant Professor:

Cheng Yong Tang, PhD, Iowa State University

Senior Instructor:

Michael D. Harper, PhD, Rensselaer Polytechnic Institute

Instructor:

Joshua Bernhard, MS, Iowa State University

The MS in Decision Sciences focuses on modeling and applications which prepares you for a career as a decision sciences specialist in industry or government. Today, companies in every conceivable industry are reaping the benefits of using formal mathematical models to assist them in addressing complex business problems. Decision Sciences graduates hold positions that bridge the gap between operations research/statistics specialists and management.

Learn to apply quantitative methods to real-world problems using modern methodologies adopted from statistics, operations research, and management science. The MS in Decision Sciences focuses on applications of mathematical models in the workplace rather than the development of new research techniques. The managerial emphasis of our degree is accomplished through a comprehensive set of elective and required coursework such as data analysis, operations management, forecasting, project management, simulation, data mining (predictive analytics), and supply chain management. A required practicum course provides students with the opportunity (under the direction of faculty) to solve a real, complex workplace problem for a local Denver organization.

Requirements for the MS degree in Decision Sciences are met by the following courses and options:

Prerequisite course work:

Useable knowledge of spreadsheets.

Required Courses (18 hours)

- BUSN 6530 - Data Analysis for Managers
- BUSN 6630 - Management of Operations
- DSCI 6230 - Business Forecasting
- DSCI 6460 - Decision Analysis
- DSCI 6820 - Project Management
- DSCI 6910 - Decision Sciences Practicum

Electives (12 hours)

Complete 4 courses. Decision Sciences electives must include at least 2 DSCI courses numbered 6000 or higher. Remaining Decision Sciences electives may be any of the following courses: DSCI 6000 or higher; ISMG 6480, Data Warehouses and Administration*; MKTG 6050, Marketing Research; or FNCE 6480, Financial Modeling.

*ISMG 6480, Data Warehouses and Administration has a prerequisite of ISMG 6080, Database Management Systems. This prerequisite is not counted toward the MS Decision Sciences degree and must be taken in addition to the 30 credit MS.

Total: 30 Hours

Notes and Restrictions

Students are not required to take a comprehensive examination or complete a thesis in the major field.

Note: Business School MS degrees typically allow students to transfer in 9 semester hours from another university. However, the MS in DSCS allows students to petition to have a maximum of 6 semester hours transfer from another university. The transfer of *required* courses must closely reflect the educational objectives of the Master's degree in Decision Sciences. The evaluation of substitute courses will include syllabi evaluation and the accreditation of the transferring institution.

Early Childhood Education MA

Office:

Lawrence Street Center, 701

Telephone:

303-315-6300

Fax:

303-315-6311

E-mail:

education@ucdenver.edu

Web site:

www.ucdenver.edu/education/alps

Faculty:

More information about faculty in this division is available online at www.ucdenver.edu/education

About the early childhood education program

The early childhood education (ECE) program leads to a master's degree in early childhood education and/or Colorado teacher license in early childhood special education (ECSE) specialist. The program prepares leaders who will enrich the life experience of young children (birth to 8 years) and their families through a variety of professional roles.

The ECE program is interdisciplinary in focus, drawing on university resources and the clinical expertise of various community professionals. There is a strong emphasis on fieldwork and practicum experiences in both regular and special education concentrations. Field experiences are a part of each course and provide an opportunity for each student to gain knowledge, abilities and dispositions while interacting with children, families, program staff and community agencies. Practicum experiences are designed to allow students to apply knowledge and practice skills in a closely supervised environment.

Curriculum and Program Requirements

Semester Hour Requirements

Master's degree in ECE: 39 semester hours

ECSE specialist license: 39 semester hours

Master's degree plus ECSE specialist license: 48 semester hours

Master's degree plus ECSE specialist added endorsement: 39 semester hours

ECSE specialist added endorsement: 24 semester hours

Early childhood education and the early childhood special education focus share course content in:

- language development and disorders

- child growth and development, differences and disorders
- learning approaches with young children
- measurement and evaluation
- basic statistics/research methods
- multicultural education
- research and current issues
- early childhood curriculum and program development for inclusive classrooms
- working collaboratively with parents and families
- program administration/leadership

The early childhood education program provides specialized training in:

- language acquisition and development
- literacy instruction
- infant/toddler development
- early childhood mental health and social competence

The early childhood special education program provides specialized training in:

- screening and assessment of young children
- intervention strategies with infants and preschoolers
- behavior management
- working as a member of the transdisciplinary team
- cognitive and socio-emotional development and disorders
- treatment of children who have neurological impairment and chronic illness
- challenging behaviors and autism

For more information on coursework and plans of study, please contact an advisor in the School of Education and Human Development.

Fieldwork and Practicum Requirements

The master's degree in early childhood education includes a total of 425 hours of required fieldwork/practica. Approximately 200 hours of fieldwork are associated with course assignments; 225 hours of intense, culminating practica occur toward the end of the second year of study. Students completing the MA program take a written comprehensive exam (take home) during the final semester of their program (concurrently with courses at the end of the program sequence).

For the master's degree in early childhood education plus the ECSE specialist initial license, a total of 800 hours of fieldwork/practica is required. Approximately 290 hours of fieldwork are associated with course assignments; 510 hours of intense, culminating practica occur toward the end of the second year of study. Students seeking an added endorsement in ECSE specialist also complete 510 hours of practicum experiences.

Economics MA

► Graduate School Rules apply to this program

Admissions Advisor: Brian Duncan (brian.duncan@ucdenver.edu)

Schedule Advisor: Dan Rees (daniel.rees@ucdenver.edu)

Requirements for Admission

- general requirements of the Graduate School (including a 3.0 undergraduate cumulative GPA)
- three letters of recommendation
- 15 semester hours of undergraduate economics (including theory and quantitative methods); variations to be discussed with graduate advisor
- acceptable GRE scores
- two official transcripts from all colleges attended
- international students must submit TOEFL scores

Degree Requirements

The MA degree requires the completion of 30 semester hours of course work, of which 21 hours are core requirements. Each student's plan will be worked out in conjunction with the graduate advisor.

Core Courses

All courses must be completed with a grade of B- or better.

- ECON 5073 - Microeconomic Theory
- ECON 5083 - Macroeconomic Theory
- ECON 5803 - Mathematical Economics
- ECON 5813 - Econometrics I
- ECON 5823 - Econometrics II
- ECON 6053 - Seminar In Applied Economics
- ECON 6073 - Research Seminar

Total: 21 Hours

Electives

Three elective courses

Total: 9 Hours

Degree Total: 30 Hours

Educational Psychology MA

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Website: www.ucdenver.edu/education/alps

Faculty

Information about educational psychology faculty is available online at www.ucdenver.edu/education.

Master's Degree

The MA program in educational psychology prepares students to facilitate the teaching/learning process. Thus, many students pursue the degree to enhance their skills as professional classroom teachers. The degree also provides skills necessary for a variety of roles where knowledge of learning, development, motivation, and research is essential such as teaching at the community college level, teaching adults, consulting, developing assessments, and conducting program evaluation. Other students seek the MA as preparation for advanced study in educational psychology or research.

Note, too, that many students in the school's urban community teacher education program—as well as interns in the alternative teacher licensure programs conducted by the Stanley British Primary School, the Boulder Journey School and Friends' School—also seek the MA degree in educational psychology.

Areas of Study

Four major areas of concentration are available—human learning, human development, research and evaluation, and assessment. Regardless of the concentration area selected, all students must:

- demonstrate competence in educational psychology by successfully completing 36 semester hours of relevant course work
- complete either a practicum/field experience, a master's thesis, or an independent study project, the latter involving the collection of data bearing on a given problem and its analysis and interpretation in writing
- perform satisfactorily on a written comprehensive examination (typically during the last term enrolled in regular courses)
- complete the degree on a timely basis, usually within three years

Research and Evaluation Methods

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Web site: www.ucdenver.edu/education/alps

Faculty

To find information about faculty in this program visit www.ucdenver.edu/education.

Emphasis Track

There is a research and evaluations methods (RSEM) emphasis track within the educational psychology master's degree program: students can select a focus on evaluation or on assessment. RSEM students will acquire skills necessary for a variety of roles that involve data driven decisions. Students who complete the MA will be better prepared to facilitate decision making based on evidence. Some students pursue the degree to enhance their skills as classroom teachers; others move out of the classroom and work in environments where information and data from different sources can be used to make informed decisions.

The RSEM area also provides classes to all education graduate programs, offering courses in research methods, evaluation, statistics, analysis, assessment, and measurement.

Areas of Study

Two major areas of concentration are available—research and evaluation, and assessment. Regardless of the concentration area selected, all students must:

- demonstrate competence in educational psychology by successfully completing 36 semester hours of relevant course work
- complete either a practicum/field experience, a master's thesis, or an independent study project, the latter involving the collection of data bearing on a given problem and its analysis and interpretation in writing
- perform satisfactorily on a written comprehensive examination (typically during the last term enrolled in regular courses)
- complete the degree on a timely basis, usually within three years

Electrical Engineering MEng

► Graduate School Rules apply to this program

The master of engineering (MEng) degree program is broad based and is designed especially for that person who wants to further his/her education in more than just electrical engineering. A minimum of 30 semester hours of academic work is required for the MEng degree. At least 15 of these hours must be in electrical engineering courses at the 5000-level or above. At least 15 semester hours must be taken in the Department of Electrical Engineering at CU Denver. As many as 15 semester hours may be taken outside of engineering. The student who wishes to enter the master of engineering program should apply to the electrical engineering department in the same manner as a master of science applicant.

Electrical Engineering MS

► Graduate School Rules apply to this program

The master of science (MS) program offers two plans, thesis (Plan I) and master's project (Plan II). In each, the student must complete 30 graduate semester hours. To satisfy the breadth requirement, two courses outside the area of specialization are required and two mathematics courses are recommended. Plan I requires a minimum of 24 semester hours of graduate course work and 6 semester hours of MS thesis work. Plan II requires a minimum of 27 semester hours of graduate course work and 3 semester hours of MS project. A minimum of 21 graduate semester hours must be earned through the electrical engineering department at CU Denver. Candidates with a BS degree from CU Denver can count 6 electrical engineering CU Denver graduate credits toward both undergraduate and graduate degrees if their undergraduate GPA is at least 3.0. Double counting applies only to credits earned with a B or better grade.

English MA

► Graduate School Rules apply to this program

Program Director: Michelle Comstock

Telephone: 303-556-8479

E-mail: Michelle.Comstock@ucdenver.edu

The department offers three programs in the English MA degree: 1) the literature program increases students' knowledge of English and American literature and also their familiarity with a variety of critical methodologies; 2) the rhetoric and teaching of writing program introduces students to the theory, research and pedagogy underlying contemporary instruction in secondary and college composition; 3) the applied linguistics program introduces students to the principles, practices and concerns of teaching English to adults whose first language is not English.

Students concurrently pursuing a master's in education can count up to 6 hours of education courses toward their MA in English with their English advisor's permission.

Contact the graduate program director for more information on these programs.

Requirements for Admission

Applicants for any of the programs described above must submit all application materials by either the spring, summer or fall deadline. The deadline for summer or fall admission is April 1; the deadline for spring is October 1. Complete applications for all three programs must include the following:

- a completed University of Colorado graduate application
- one copy of all graduate and undergraduate transcripts, and for any nondegree courses previously taken
- three letters of recommendation in which the recommender specifically addresses the candidate's ability to pursue successfully the program chosen
- recent scores on the GRE, including the analytical, verbal and quantitative portions. GRE score average should be 155 or higher. Analytical writing score should be 4 or higher.
- evidence of a 3.0 GPA in previous courses
- a one-page statement of purpose
- 10-page critical writing sample

In addition to these requirements, applicants for the literature program must have successfully completed 24 semester hours in English courses (graduate or undergraduate), excluding courses in composition, creative writing or speech. At least 15 of these semester hours must be at the upper-division level.

Transfer of Credits from Other CU Campuses

Students admitted to graduate study in English may complete all of their course requirements for the MA degree at UC Denver. Up to 9 semester hours (total) may be transferred from the University of Colorado Boulder, University of Colorado Colorado Springs or other graduate program; however, such transfer requires the written approval of the specific program

coordinator. Only 9 semester hours of courses taken at CU Denver before acceptance into the program can be counted toward the degree. Further, work already applied toward a graduate degree received at the University of Colorado or at another institution cannot be transferred toward another graduate degree of the same level at CU Denver. (For other rules concerning transfer of graduate credits, see the Graduate School Rules.) For more information, contact the graduate program director at 303-556-8479.

Degree Requirements

The literature program requires 30-34 semester hours; the rhetoric and teaching of writing program requires 30-31 hours; the applied linguistics program requires 30-31 hours. Students must receive a *B-* or above in all courses counted toward the MA degree.

Literature Program

This program provides a general knowledge of English and American literature, a familiarity with the range of theoretical approaches and critical methodologies, and an opportunity to take courses in film studies and ethnic and world literature.

GENERAL REQUIREMENTS

- Satisfactory completion of all required course work
- Satisfactory completion of the MA comprehensive exam OR thesis submission and defense
- Demonstrated fourth-semester proficiency in a foreign language. Old English or Latin will also satisfy this requirement
- Compliance with all graduate school policies and requirements

COURSE REQUIREMENTS (30 SEMESTER HOURS MINIMUM)

All courses are 3 credit hours unless otherwise noted. A minimum of 9 semester hours must be taken at the 6000 level.

REQUIRED COURSES

- ENGL 5100 - Literary Research and Writing
- ENGL 6001 - Critical Theory in Literature and Film

Total: 6 Hours

AREA REQUIREMENTS

Choose seven courses at the 5000/6000 level which fulfill seven different areas from the following 9 areas:

1. Classics

2. Medieval literature
3. Renaissance literature
4. Restoration and 18th-century literature
5. Romanticism
6. American literature, pre-1900
7. Victorian literature
8. American literature or film, post-1900
9. British modernism/ 20th-century British literature or film

Any graduate literature/film course will fulfill at least one of these areas. Each area can be satisfied by several different courses periodically offered. Historical surveys count within the most appropriate area based on the syllabus. Courses in film, world literature, ethnic literature and women's literature generally fulfill one of the 20th-century areas.

Total: 21 Hours

ELECTIVES

Choose one of the following:

- ENGL 5093 - Teaching of Writing
- ENGL 5913 - Practicum in Language and Rhetoric
- An ENGL 5000- or 6000-level literature or film course

Total: 3 Hours

THESIS OR NON-THESIS OPTIONS

Non-Thesis Option

Students not writing a thesis must take the MA comprehensive exam. Prior to the exam, students may take ENGL 6920. Directed Readings

for 1-3 semester hours to help them prepare for the exam, but this is not required.

Students must be registered during the semester in which they take the MA comprehensive exam, which can be met by signing up for candidate for degree (CAND 5940-900) if all course work is completed.

Thesis Option

Students must submit a proposal for a thesis to the graduate program director for permission to proceed to the thesis.

- ENGL 6950 - Master's Thesis (4-6 hours)
- For details about writing, submitting and defending a thesis, see the current thesis guidelines.

Total Thesis Credits: 4-6 Hours

LANGUAGE REQUIREMENT

Students must demonstrate fourth-semester proficiency in a foreign language. Old English or Latin also satisfies this requirement.

Literature Program Total: 30-34 Hours

Rhetoric and Teaching of Writing Program

In this program, you'll study rhetorical and language traditions and apply that knowledge to the teaching of writing. Knowledge of multicultural dimensions of literacy will help you understand the rich cultural complexity of the modern classroom. This program also focuses on developing your own writing and editing skills to fulfill your professional role as a teacher-writer.

COURSE REQUIREMENTS (30 SEMESTER HOURS MINIMUM)

All courses are 3 credit hours unless otherwise noted.

REQUIRED COURSES

- ENGL 5080 - History of the English Language
- -OR- ENGL 5171 - Language Theory
- ENGL 5093 - Teaching of Writing
- ENGL 5150 - Research Methods
- ENGL 5190 - Special Topics in Rhetoric and Writing
- ENGL 5651 - Second Language Writing
- ENGL 6002 - Rhetorical Theory

Total: 18 Hours

AREA OF CONCENTRATION

Chosen by the student and approved by the student's advisor, three courses are taken in an area of concentration which may be in virtually any field that complements the required core and that meets the student's goals in the program. Representative areas include but are not limited to literature, technical communication, reading, English as a second language and communication. ENGL 5913. Practicum in Language and Rhetoric may be included among these nine hours.

Total: 9 Hours

THESIS OR PORTFOLIO EXAM

ENGL 6950. Master's Thesis

For details about writing, submitting and defending a thesis, see the current thesis guidelines.

-OR-

ENGL 6970. Portfolio Examination

Total: 3-6 Hours

Rhetoric and Teaching of Writing Total: 30-31 Hours

Applied Linguistics Program

If you want a thorough grounding in the principles and practice of teaching English to non-native adult users of English with a special focus on the discourses of the classroom and on teaching second-language writers, this program is a good choice.

GENERAL REQUIREMENTS

Foreign Language: Students must demonstrate fourth semester proficiency in a foreign language prior to graduation; assessment of proficiency depends on the language to be demonstrated.

Internship: Those students who are not teaching adult ESL students at the time of their course work will be required to take a 3–6 credit internship in an area language school, workplace or high school/college ESL program, either through the Experiential Learning Center or by arrangement with the program coordinator.

COURSE REQUIREMENTS (30 SEMESTER HOURS MINIMUM)

All courses are 3 credit hours unless otherwise noted.

REQUIRED CORE COURSES

- ENGL 5093 - Teaching of Writing
 - ENGL 5150 - Research Methods
 - ENGL 5171 - Language Theory
 - ENGL 5601 - Principles and Practices of Second Language Acquisition
 - ENGL 5651 - Second Language Writing
 - ENGL 5913 - Practicum in Language and Rhetoric
- OR- an ENGL elective approved by the student's advisor

Total: 18 Hours

ELECTIVES: LANGUAGE OR RHETORIC COURSES

Choose two:

- ENGL 5080 - History of the English Language
- ENGL 5190 - Special Topics in Rhetoric and Writing
- ENGL 6002 - Rhetorical Theory

Total: 6 Hours

SYNTHESIS OPTIONS

Students may choose from the following two options:

Comprehensive Exam or Portfolio Exam

Students will take a comprehensive exam or portfolio exam in their last semester. Students selecting this option must take two elective courses (6 hours) approved by their advisor.

Thesis

ENGL 6840. Independent Study (3 hours)

ENGL 6950. Master's Thesis (4-6 hours)

For details about writing, submitting and defending a thesis, see the current thesis guidelines.

Total: 6-7 Hours

Applied Linguistics Total: 30-31 Hours

Additional Information

Candidate for Degree: Graduate students must be registered for at least one credit hour during the semester in which they graduate. Those who have completed all required courses and requirements may register for candidate for degree: CAND 5940; this carries no course credit, but you are billed for one credit of tuition and \$10 in fees.

Teaching Assistantships: Graduate students who receive a teaching assistantship must take the following course in the fall during their first semester as a teaching assistant.

ENGL 5913. Practicum in Language and Rhetoric

Dual Degrees: Students concurrently pursuing a MA in education can count up to six hours of education courses toward their MA in English, with their English graduate advisor's permission.

Environmental Sciences MS

- Graduate School Rules apply to this program

Program Director: Frederick B. Chambers

Associate Program Director: Jon Barbour

Office: North Classroom, 3622

Telephone: 303-556-4520

Fax: 303-556-6197

E-mail: Jon.Barbour@ucdenver.edu

Web site: clas.ucdenver.edu/ges/mses.html

Faculty Affiliates to the M.S. in Environmental Sciences Program

Professors:

Larry Anderson, chemistry

Lloyd Burton, School of Public Affairs

N. Y. Chang, civil engineering

Anne Chin, geography and environmental science

James C. Y. Guo, civil engineering

John A. Lanning, chemistry

Diana F. Tomback, integrative biology

Associate Professors:

Leo P. Bruederle, integrative biology

Frederick B. Chambers, geography and environmental science

Greg Cronin, integrative biology

Rafael Moreno-Sanchez, geography and environmental science

Glenn T. Morris, political science

Brian Page, geography and environmental science

Timberly M. Roane, integrative biology

Deborah S. K. Thomas, geography and environmental science

John W. Wyckoff, geography and environmental science

Assistant Professors:

Casey Allen, geography and environmental science

Peter Anthamatten, geography and environmental science

Christy Briles, geography and environmental science

Michael J. Green, integrative biology

Gregory Simon, geography and environmental science

Bryan S. Wee, geography and environmental science

Instructors/Adjunct Faculty:

Jon Barbour, geography and environmental science

Amanda Weaver, geography and environmental science

Environmental sciences is a multidisciplinary study of the environment, housed in the Department of Geography and Environmental Sciences. Academic fields involved in environmental sciences include chemistry, biology and ecology, physics, geology, geography, anthropology, engineering, political science, law, economics and the health sciences. Students planning to pursue the MS in environmental sciences must either have earned a bachelor's degree or have taken significant course work in the natural/physical sciences or engineering and completed several other prerequisites (see the following graduate information). Graduate-level certificates in environmental sciences are also offered. The certificates may be earned stand-alone or as options in the MS in environmental sciences.

Environmental careers encompass a broad range of professions, from those with a strong foundation in the natural/physical sciences or engineering to those based in the social sciences and/or humanities. Students interested in environmental issues and careers should investigate the whole field before deciding which course to follow. At CU Denver, the MS in environmental sciences emphasizes the natural/physical sciences and engineering with the addition of the social sciences and humanities.

The MS in environmental sciences degree is designed to provide training in engineering, natural/physical sciences and socioeconomic analysis. The goals of the program are to (1) enhance the interdisciplinary communication and analytical skills of the student, and (2) provide a multidisciplinary approach for more intensive study of a particular environmental issue. Students will receive instruction in the physical and biological dynamics of various ecosystems, environmental engineering and socioeconomic issues associated with environmental analysis.

Graduates of the environmental sciences program are involved in many different areas, such as reviewing environmental impact statements, monitoring groundwater quality and communicating with the public. Many students have found employment in various agencies (U.S. Environmental Protection Agency, U.S. Geological Survey, Colorado State Department of Public Health and Environment) and private-sector environmental and engineering firms.

Requirements for Admission

The program is for students who either have baccalaureate degrees or significant background in one of the natural/physical sciences or engineering. In addition, minimum undergraduate science and math requirements are:

- one semester of calculus and one semester of upper-division statistics (*if applicant is missing the statistics course, he/she can be admitted but must take ENVS 5600, Applied Statistics, or an approved statistics course as an elective before receiving the MS in environmental sciences degree*)
- two semesters general chemistry with lab
- one semester physics
- two semesters general biology with lab

If only two semesters of the six prerequisite courses are lacking, students may be admitted, but must take them in the first year in the program. Applicants who have fulfilled all prerequisites have a better chance of acceptance. Applicants may be required to take additional prerequisite

courses (necessary for completing particular core or elective courses). The prerequisite courses will not count toward the MS in environmental sciences degree. As part of the admission review process, applicants are required to submit a graduate application, a minimum of three letters of recommendation and transcripts from all institutions previously attended. UC Denver has a minimum requirement of a 3.0 undergraduate GPA for applicants to the Graduate School. The program admits new students for the fall semester only, and the number of students admitted to the program depends, in part, on space availability. **Applicants must submit all materials by the April 1 deadline.**

Financial Aid

There are three types of financial aid available: tuition assistance; research assistantship positions funded by grants to specific program faculty; and the regular package of financial aid (primarily loans) available through the financial aid office on the Denver campus. Incoming students will be automatically considered for program-distributed tuition assistance at the time of admission to the program. Continuing students will be regularly apprised of available aid and positions. Students interested in research assistantships should consult individual faculty with whom they wish to work regarding potential assistantship positions. All other aid should be requested through the CU Denver Financial Aid Office, North Classroom, 1030, Campus Box 125, P.O. Box 173364, Denver, CO 80217-3364. Telephone: 303-556-2886.

Internships

Students in the MS in environmental sciences program are strongly encouraged to contact the Experiential Learning Center for internships and paid positions related to environmental sciences. The Experiential Learning Center is located in the Tivoli Student Union, Suite 260. Telephone: 303-556-2250. Many students have had internships in federal agencies, such as the U.S. Environmental Protection Agency and the U.S. Geological Survey.

Program Requirements

The MS in environmental sciences is a 39-hour program that provides students with two alternate plans: Plan I requires a thesis, while Plan II is a nonthesis program. General requirements for the program include: a set of core courses (18 semester hours), the MS in environmental sciences seminar course (ENVS 6002, 3 semester hours), and elective courses (12 semester hours minimum). Students choosing Plan I must also complete 6 hours of thesis, while those choosing Plan II must complete 6 hours of additional elective course work. Students opting for Plan II are encouraged to enroll in 3 hours of independent study (ENVS 6840) as one of their electives.

The degree is offered through the College of Liberal Arts and Sciences with the cooperation of the College of Engineering and Applied Science. In addition, some courses offered by the College of Architecture and Planning, the School of Public Affairs and the Business School are relevant and applicable to the program.

Required Core Courses

Fall

- CVEN 5401 - Introduction to Environmental Engineering

Seminar Course

Students are required to register for ENVS 6002, Environmental Sciences Seminar, in the first fall semester they are enrolled in the MS in Environmental Sciences program. The seminar serves as an introduction to the program and helps students to develop research skills and further their professional development.

- ENVS 6002 - Environmental Sciences Seminar
- ENVS 6200 - Risk Assessment
- GEOG 5440 - Science, Policy and the Environment

Spring

- BIOL 5445 - Applied Environmental Biology
- CHEM 5700 - Environmental Chemistry
- ENVS 5280 - Environmental Hydrology

Total: 18 Hours

The core courses are to be taken first upon entry into the program. They are the foundation for other courses in environmental sciences.

Elective Courses

(See the MS in Environmental Sciences website for a complete list of elective courses for the MS in environmental sciences program.)

Students, with the coordinator and/or an advisor, will complete a program plan that will include 12-18 semester hours of elective requirements that will meet their interests. Students may choose to use four of the electives to fulfill one of the following options offered in environmental sciences: air quality, ecosystems, environmental health, environmental science education, geospatial analysis, hazardous waste and water quality. Students must have the prerequisites for each course and must meet the requirements listed in the notes below. Contact the option advisor for the particular option of interest before starting. Upon graduation, the option will be noted on the student's transcript.

Following are the requirements for each environmental sciences option:

AIR QUALITY OPTION

Option Advisor: Jon Barbour

Telephone: 303-556-4520

E-mail: Jon.Barbour@ucdenver.edu

Required Courses

- CHEM 5710 - Air Pollution Chemistry
- ENVS 5730 - Air Quality Modeling and Analysis

Total: 6 Hours

Electives

Choose two:

- CHEM 5720 - Atmospheric Sampling and Analysis
- CVEN 5800 - Special Topics
(when Air Pollution Control is the topic)
- URPL 6800 - Special Topics: Urban and Regional Planning
(when Air Quality Planning and Policy is the topic)

Total: 6 Hours

Option Total: 12 Hours

ECOSYSTEMS OPTION*

Option Advisor: Casey Allen

Telephone: 303-556-6007

E-mail: Casey.Allen@ucdenver.edu

Required Courses

- BIOL 5415 - Microbial Ecology
- ENVS 5010 - Landscape Geochemistry

Total: 6 Hours

Electives

Choose two:

- BIOL 5050 - Advanced Biology Topics
(when Seminar in Aquatic Ecology is the topic)
- BIOL 5154 - Conservation Biology
- ENVS 5500 - Topics in Environmental Sciences
(when Ecological Risk Assessment is the topic) (See Note 2)
- ENVS 6220 - Toxicology
(see Note 2)
- GEOG 5060 - Remote Sensing I: Introduction to Environmental Remote Sensing

Total: 6 Hours

Option Total: 12 Hours

* BIOL 5445, Applied Environmental Biology, is required as a prerequisite for the ecosystems option.

ENVIRONMENTAL HEALTH OPTION*

Option Advisor: Deborah Thomas

Telephone: 303-556-5292

E-mail: Deborah.Thomas@ucdenver.edu

Required Courses

- ENVS 6220 - Toxicology
(see Note 2) (fall, even years)
- ENVS 6230 - Environmental Epidemiology
(spring, even years)

Total: 6 Hours

Electives

Choose two:

- ANTH 4010 - Medical Anthropology: Global Health
- ENVS 5500 - Topics in Environmental Sciences
(when Ecological Risk Assessment is the topic) (See Note 2)
- ENVS 6210 - Human Health and Environmental Pollution
(spring, odd years)
- PUAD 5633 - Seminar in Natural Resource and Environmental Health Law

Total: 6 Hours

Option Total: 12 Hours

* ENVS 6200, Risk Assessment, is required as a prerequisite for the environmental health option.

ENVIRONMENTAL SCIENCE EDUCATION OPTION

Option Advisor: Bryan Wee

Telephone: 303-315-4992

E-mail: bryan.wee@ucdenver.edu

Required Courses

- ENVS 5500 - Topics in Environmental Sciences
(when Survey of Field Methods is the topic)
Choose one from the following:

- ELED 5340 - Multicultural Science Education
- ENVS 5340 - Multicultural Science Education
- SECE 5340 - Multicultural Science Education

Total: 6 Hours

Electives:

Choose two:

- ANTH 5170 - Culture and the Environment
 - BIOL 5154 - Conservation Biology
 - COMM 5282 - Environmental Communication
 - GEOG 5335 - Contemporary Environmental Issues
 - GEOG 5350 - Environment and Society in the American Past
- Or another elective approved by the option advisor

Total: 6 Hours

Option Total: 12 Hours

GEOSPATIAL ANALYSIS OPTION*

Option Advisor: Rafael Moreno

Telephone: 303-556-3762

E-mail: Rafael.Moreno@ucdenver.edu

Required Courses

- GEOG 5080 - Introduction to GIS
- GEOG 5090 - Environmental Modeling with Geographic Information Systems

Total: 6 Hours

Electives

Choose two:

- CVEN 5382 - GIS Spatial Database Development
- CVEN 5385 - GIS Relational Database Systems
- CVEN 5386 - GIS Laboratory

Total: 6 Hours

Option Total: 12 Hours

* GEOG 3080, Introduction to Mapping and Map Analysis, is required as a prerequisite of the geospatial analysis option.

For more information, contact the option advisor or Jon Barbour at 303-556-4520, Jon.Barbour@ucdenver.edu.

WATER QUALITY OPTION*

Option Advisor: John Wyckoff

Telephone: 303-556-2590

E-mail: John.Wyckoff@ucdenver.edu

Required Courses

Choose two:

- BIOL 5416 - Aquatic Ecology
- ENVS 5280 - Environmental Hydrology
- ENVS 5410 - Aquatic Chemistry

Total: 6 Hours

Electives

Choose two:

- CVEN 5333 - Applied Hydrology
- CVEN 5334 - Groundwater Hydrology
- CVEN 5343 - Open Channel Hydraulics
- CVEN 5393 - Water Resources Development and Management
- ENVS 5280 - Environmental Hydrology (if not selected as one of the required courses)
- ENVS 5403 - Unsaturated Zone Hydrology

Total: 6 Hours

Option Total: 12 Hours

*CHEM 5700, Environmental Chemistry, or appropriate chemistry background is required as a prerequisite of the water quality option.

Notes:

1. Many of the courses have prerequisites; student must check the catalog for prerequisite requirements for these courses. Some options have a prerequisite course requirement.
2. One course may not be used for more than one option, even if it is listed in several options. Other courses may be offered that will be acceptable as electives with approval of the option advisor and the director of the program.

3. No more than three courses may be from any one discipline (excluding ENVS); i.e., chemistry, biology, civil engineering.
4. Courses used by the student to fulfill a core requirement may not be used to fulfill the options.
5. All work submitted for the environmental sciences options must have a grade of *B* (3.0) or better.
6. All courses for the environmental sciences options must be completed at the Denver campus.
7. Courses applied to either a certificate* or an MS degree may later be applied toward the other if all pertinent course work is completed within a five-year time period.

* The above options of the program may be taken to earn a corresponding environmental sciences certificate. However, certificates may be earned without entrance into the MS in environmental sciences program. (See the Environmental Sciences Graduate Certificate description).

Executive MBA in Health Administration

Distinctive Features of the Executive Program in Health Administration

1. Drawing on the expertise represented by the faculties of a consortium of western universities, the program offers high-quality courses taught by instructors that are typically not available from a single university.
2. The executive program facilitates learning for professionals who have continuing career and family responsibilities. The program is especially tailored for working individuals, allowing students to remain on their jobs while completing their educational program.
3. The program employs innovation in the technology of educational delivery. Learning methods include:
 - computer-assisted instruction and self-paced learning packages
 - computer conferencing and electronic case analyses
 - on-campus sessions

For application and additional information, write to:

Executive Program in Health Administration

The Business School

University of Colorado Denver

P.O. Box 480006

Denver, CO 80248-0006

www.colorado.edu/execed

Finance and Risk Management MS

Program Director: Ajeyo Banerjee

Telephone: 303.315.8456

Faculty

Professors:

Marcelle Arak, PhD, Massachusetts Institute of Technology

Jean-Claude Bosch, PhD, University of Washington

Elizabeth Cooperman, PhD, University of Georgia

E. Woodrow Eckard, PhD, University of California-Los Angeles

Richard Foster, PhD, University of Chicago

Dean Taylor, PhD, University of Chicago

Associate Professors:

Ajeyo Banerjee, PhD, University of Massachusetts-Amherst

Jian Yang, PhD, Texas A&M University

Assistant Professors:

Takeshi Nishikawa, PhD, Texas Tech University

Rina Ray, PhD, Indiana University

Senior Instructors:

John Byrd, PhD, University of Oregon

Chen Ji, MS, University of Colorado

Barbara Pelter, MA, University of Colorado

Instructors:

John Daley, PhD, University of Washington

Eric Reiner, MBA, Louisiana State University

Cindy Sutfin, MS, University of Colorado

The master of science in finance and risk management provides the necessary depth and specialized expertise to meet the needs of businesses for financial managers, investment analysts and other finance specialists.

The program emphasizes a familiarity with the institutions in our financial system, an understanding of financial markets and instruments, and the analytical skills and tools necessary to make informed decisions about investment and financing.

The program is suited to students from a wide variety of undergraduate backgrounds and is particularly appropriate to students with strong technical and analytical backgrounds. Admission standards for the MS finance and risk management program are unique to the program. Therefore, admission to other graduate business programs does not guarantee admission into the MS finance and risk management program.

The MS in finance and risk management offers flexibility with on-campus and online courses. The MS finance and risk management degree requirements are met by the following courses and options:

Prerequisites

Prerequisites: BUSN 6550, Analyzing and Interpreting Accounting Information, or the equivalent accounting background. Students are also expected to be knowledgeable in spreadsheet software and have quantitative skills evidenced by a 40% GMAT quantitative score or equivalent.

Finance and Risk Management Core (18 hours)

- FNCE 6290 - Quantitative Methods for Finance
- BUSN 6620 - Applied Economics for Managers
- BUSN 6640 - Financial Management
- FNCE 6300 - Macroeconomics and Financial Markets
- FNCE 6330 - Investment Management Analysis
Complete one of the following three courses:
- FNCE 6380 - Futures and Options
- FNCE 6382 - Survey of Financial and Commodity Derivatives
- FNCE 6410 - Real Options and Decisions Under Uncertainty

Specializations

Specializations (12 semester hours)

Students must complete one of the following **Specializations**.

Finance Specialization

Complete three FNCE courses numbered 6000 or higher.

Complete one Elective course which may be selected from any of the following courses: FNCE 6000 or higher, ACCT 6140 Tax Planning for Managers, ACCT 6340 Financial Statement Analysis, ENTP 6824 Entrepreneurial Financial Management (cannot receive credit for both ENTP 6824 and FNCE 6460 Small Firm Financial Management), ECON 5803 Mathematical Economics, ECON 5813 Econometrics I, or ECON 5823 Econometrics II. ECON courses are recommended for students wishing to later pursue a PhD in finance.

Financial Analysis and Management Specialization

Complete 3 or 4 of the following courses:

- FNCE 6129 - Practical Enterprise Risk Management
- FNCE 6310 - Financial Decisions and Policies
- FNCE 6340 - Business Firm Valuation

- FNCE 6360 - Management of Financial Institutions
 - FNCE 6410 - Real Options and Decisions Under Uncertainty
 - FNCE 6411 - International Corporate Governance
 - FNCE 6420 - Mergers and Acquisitions
 - FNCE 6450 - Short-Term Financial Management
 - FNCE 6460 - Emerging Market Finance
 - FNCE 6480 - Financial Modeling
 - FNCE 6809 - Principles of Risk and Insurance
 - FNCE 6909 - Corporate Risk Management
- If 3 courses completed from list above, complete 1 course from the list below:
- ACCT 6140 - Tax Planning for Managers
 - ACCT 6340 - Financial Statement Analysis
 - ENTP 6824 - Entrepreneurial Financial Management
 - MATH 5390 - Game Theory

Financial and Commodities Risk Management Specialization

Complete 3 or 4 of the following courses:

- FNCE 6129 - Practical Enterprise Risk Management
 - FNCE 6350 - Financial Innovations
 - FNCE 6360 - Management of Financial Institutions
 - FNCE 6370 - International Financial Management
 - FNCE 6380 - Futures and Options
 - FNCE 6382 - Survey of Financial and Commodity Derivatives
 - FNCE 6410 - Real Options and Decisions Under Uncertainty
 - FNCE 6480 - Financial Modeling
 - FNCE 6809 - Principles of Risk and Insurance
 - FNCE 6909 - Corporate Risk Management
- If 3 courses completed from list above, complete 1 course from the list below:
- ECON 5823 - Econometrics II
 - ECON 6801 - Advanced Mathematical Economics
 - MATH 5351 - Actuarial Models
 - MATH 5792 - Probabilistic Modeling

Risk Management and Insurance Specialization

Risk Management and Insurance Core (9 hours)

- FNCE 6129 - Practical Enterprise Risk Management
- FNCE 6809 - Principles of Risk and Insurance
- FNCE 6909 - Corporate Risk Management

Quantitative Elective (3 hours)

Complete one of the following:

- FNCE 6340 - Business Firm Valuation
 - FNCE 6350 - Financial Innovations
- FNCE 6380, FNCE 6382, or FNCE 6410 cannot be used toward specializations if taken in the Finance and Risk Management Core.
- FNCE 6380 - Futures and Options

- FNCE 6382 - Survey of Financial and Commodity Derivatives
- FNCE 6410 - Real Options and Decisions Under Uncertainty
- FNCE 6411 - International Corporate Governance
- FNCE 6420 - Mergers and Acquisitions
- FNCE 6480 - Financial Modeling
- ENTP 6824 - Entrepreneurial Financial Management

- HLTH 6040 - Health Care Financial Management

There may be additional prerequisite courses for the ECON and/or MATH selections. Please check with those departments or the graduate advisors.

- ECON 5823 - Econometrics II
- MATH 5351 - Actuarial Models
- MATH 5792 - Probabilistic Modeling

Economics Specialization

Finance and Risk Management Core (9 hours)

- BUSN 6640 - Financial Management
 - FNCE 6330 - Investment Management Analysis
- Select one of the following three FNCE courses:
- FNCE 6380 - Futures and Options
 - FNCE 6382 - Survey of Financial and Commodity Derivatives
 - FNCE 6410 - Real Options and Decisions Under Uncertainty

Finance and Risk Management Electives (6 hours)

Select any two FNCE courses numbered 6000 or higher.

Economics Core (12 hours)

- ECON 5073 - Microeconomic Theory
- ECON 5083 - Macroeconomic Theory
- ECON 5803 - Mathematical Economics
- ECON 5813 - Econometrics I

Quantitative Elective (3 hours)

Select one of the following courses:

- ECON 5823 - Econometrics II
- ECON 6801 - Advanced Mathematical Economics
- MATH 5351 - Actuarial Models
- MATH 5390 - Game Theory
- MATH 5792 - Probabilistic Modeling

Total: 30 Hours

Global Energy Management MS

Program Advisor: Sarah Dushame

Telephone: 303-605-6212

E-mail: Sarah.Dushame@ucdenver.edu

Faculty

Professors/Instructors

Timothy Antoniuk, MDes, University of Alberta
William Ascher, PhD, Yale University
Stephen Brown, PhD, University of Maryland
Matthew Clarke, PhD, University of Calgary
William Fox, JD, Catholic University of America
Mean Husein, PhD, McGill University
Merrily Kaut, PhD, University of Colorado Denver
L. Ann Martin, PhD, University of Minnesota

The master of science in global energy management (GEM) prepares individuals for leadership careers in the energy industry. This degree is particularly appropriate for individuals seeking to advance their existing careers in the energy field. Prior work experience within the field is preferred, but not required. The program consists of two components: the core curriculum and the more advanced and specialized elective courses. The MS GEM program requires the completion of the following core classes as well as four elective courses from the selection listed below.

Required Courses

- GEMM 6000 - 21st Century Global Energy Issues and Realities
- GEMM 6100 - Global Energy Economics
- GEMM 6200 - Environmental, Regulatory, Legal & Political Environment in the Energy Industry
- GEMM 6300 - Technical Aspects of Energy Science
- GEMM 6400 - Leadership and Decision Making in the Global Energy Environment
- GEMM 6500 - Energy Accounting in the Global Markets
- GEMM 6600 - Introduction To Financial Management In The Energy Industry
- GEMM 6410 - People Management in the Global Energy Environment

Choose four

Choose four of the following courses. These courses are taken during the last two terms of the program and are offered based on enrollment.

- GEMM 6210 - Energy and the Law: Property and Contracts
- GEMM 6430 - Organizational Behavior in the Energy Industry
- GEMM 6450 - Strategic Management of the Energy Industry
- GEMM 6460 - Integrated Information Management for Energy Firms

- GEMM 6470 - Energy Marketing
- GEMM 6610 - Advanced Financial Management in the Energy Industry
- GEMM 6620 - Energy Asset & Production Management for the Energy Industry
- GEMM 6630 - Commercialization Management of Renewable Energies

Prerequisites

Applicants that do not have a science- or energy-related field undergraduate degree or three-plus years experience in the industry are required to take two prerequisite courses as well as the GMAT.

The prerequisite courses include physical geology and introduction to physical engineering. These courses can be taken at any accredited university, but must be approved by a GEM team staff member before registering. Also the prerequisites may be taken prior or concurrently with GEMM 6000 and GEMM 6100.

Notes and Restrictions

The program is a cohort group, hybrid online, 18-month master of science degree program. As a cohort program, all students start together, progress together and graduate together. Students cannot take time out from the program once it starts and need to plan on remaining in the program for the full 18 months. If it becomes necessary to take a term off, students may not re-enroll until the next cohort group catches up to the point where the student originally dropped out, which is 6 months later. As a hybrid online program, professors and students meet in class face to face for four days (Fridays through Mondays) at the start of each 3-month term with the rest of the term completed online. Please note that the GEM degree program runs on a completely separate schedule from the normal semester terms of the Business School. Please check the Business School Web site for deadlines and dates of each GEM term. All GEMM courses are restricted to those students who have been admitted to the MS GEM program.

Dual Degrees

In order to participate in the dual degree options offered by the Business School, students in the GEM program must first complete their entire GEM degree before they can begin their second degree.

Health Administration MS

Program Director: Errol L. Biggs

Telephone: 303-315-8851

E-mail: errol.biggs@ucdenver.edu

Faculty

Professors:

Heidi Boerstler, PhD/JD, Yale University/University of Denver

Peter Bryant, PhD, Stanford University

C.Marlena Fiol, PhD, University of Illinois-Urbana-Champaign

Richard Foster, PhD, University of Chicago

Bruce Neumann, PhD, University of Illinois

Edward O'Connor, PhD, University of Akron

Associate Professors:

Blair Gifford, PhD, University of Chicago

Deborah Kellogg, PhD, University of Southern California

Stephen Ross, MD, University of North Carolina

Instructor:

Errol Biggs, PhD, Pennsylvania State University

The goal of the master of science in health administration degree is to prepare men and women who, after appropriate practical experience in responsible managerial positions, are capable of assuming positions as chief executive officers or senior administrators in complex, multi-service healthcare organizations or in organizations' purchasing health services.

The curriculum is a synthesis of management concepts and techniques that are applicable to any economic organization and tools that can be specifically applied to health and health services systems. The program emphasizes skills that heighten basic analytical and decision-making processes used by top-level managers in selecting broad strategies for the institutions and by junior managers in administering subunits of health care organizations. The faculty guide the students in their mastery of theoretical, conceptual and quantitative topics.

The program has enjoyed continuous accreditation by the Commission on Accreditation of Healthcare Management Education since 1970.

A. Common Body of Knowledge (CBK) (18 hours)

- BUSN 6521 - Managing Individuals and Teams (Health Section)
- BUSN 6530 - Data Analysis for Managers
- BUSN 6550 - Analyzing and Interpreting Accounting Information
- BUSN 6560 - Marketing Management
- BUSN 6630 - Management of Operations
- BUSN 6640 - Financial Management

B. Health Administration Core (21 hours)

- BUSN 6541 - Legal and Ethical Environment of Business (Health Section)
- BUSN 6621 - Applied Economics for Managers (Health Section)
- BUSN 6711 - Strategic Management (Health Section)
- HLTH 6010 - Health Care Systems
- HLTH 6040 - Health Care Financial Management
- HLTH 6911 - Health Field Studies
- DSCI 6440 - Quality and Process Improvement

C. Health Administration Information Technology Elective (3 hours)

Complete 1 on the following courses:

- HLTH 6071 - Introduction To Health Information Technology
- HLTH 6072 - Fundamentals of Health Information Technology Management

D. Health Administration Electives (9 hours)

Complete 3 of the following courses:

- HLTH 6055 - Transformational Leadership/Transforming Organizations
- HLTH 6070 - International Health Policy and Management
- HLTH 6075 - International Health Travel Study
- HLTH 6740 - Profiles in Health Care
- MGMT 6803 - Visionary Leadership

Notes and Restrictions

Health Administration electives. Choose three of the following: HLTH 6055, Transformation Leadership; HLTH 6740, Profiles in Healthcare; MGMT 6803, Visionary Leadership; HLTH 6075, Travel Study; HLTH 6070, International Health Policy & Management.

Health Information Technology elective. Choose one of the following: HLTH 6071, Introduction to Health Information Technology or HLTH 6027, Fundamentals of Health Information Technology.

Management Residency. A management residency is optional, but recommended for all students, especially those with limited health care experience. The faculty of the program provide assistance to students in securing the residency, as well as regular consultation during the residency period. Information on the full range of local, regional, and national residencies is available in the program office.

Length of Program. The didactic portion of the degree will take at least two academic years, since most HA courses are offered only once each year and many have prerequisites. Part-time study is facilitated by courses being scheduled for late afternoon and evening hours.

Specialized Tracks in MS Health Administration

Each track carries its own specific course requirements. To provide a variety of perspectives and experiences within a specific area of health administration, each track includes courses that span various departments within the Business School, other schools on the Denver campus, and other University of Colorado campuses.

- International Health Management and Policy track
- Financial Management track
- Health Information Technology Management track

Institute for International Business

The International Health track is affiliated with the Institute for International Business at UC Denver. The Institute for International Business is one of a few university programs to have received the prestigious CIBER grant from U.S. Department of Education. The grant is being used by the institute to provide effective internationally oriented education, research, and outreach activities. Also, the institute is a participant in an international consortium of universities for faculty and student program and course exchanges. Students in the International Health Management and Policy track will have access to the institute's exchange networks.

International Health Travel/Study Course

Program Director: Blair Gifford

Telephone: 303-315-8400

E-mail: Global-Health@ucdenver.edu

A unique feature of our International Health Management and Policy track is its emphasis on making sure students gain international experience during their education. The travel study course requirement can be met by taking a University of Colorado health travel/study course, or a student can take a course at a partnering university. An example of a health travel/study was a three-week trip to Thailand and Vietnam to visit numerous cultural- and health-related facilities.

Historic Preservation MS

► Graduate School Rules apply to this program

Program Director: Christopher Koziol

Office: CU Denver Building, 3200

Telephone: 303-556-6516

E-mail: christopher.koziol@ucdenver.edu

In a rapidly changing cultural, economic and professional environment, it is valuable to have an understanding of what is worth saving of the built environment. However, appreciation for the past alone is insufficient for making the informed and creative decisions expected and required of cutting-edge professionals. The desire to know can become the opportunity to lead. There is an increasingly urgent need in our professional community and in our society for the skills and knowledge that this effort requires and this degree offers.

As global economies change fewer resources are available for new buildings and we must adaptively reuse our existing structures. This trend will continue beyond short-term economic conditions, because it will always be a more sustainable practice to reuse existing buildings than to tear them down and harvest or manufacture new materials.

The College of Architecture and Planning, and the professional community that it serves, foresee a significant and permanent shift towards more adaptive reuse of existing buildings. The master of science in historic preservation is a program designed to prepare students for a true 21st Century career.

Historic preservationists come from a variety of backgrounds. Some are well-educated in the humanities and desire to increase their technical understanding. Those familiar with the social sciences might be seeking "real world" applications for their expertise. Many already with "first professional degrees" in design and planning disciplines, as well as the law and business, seek to deepen their competence in the vibrant and interesting professional niche of historic preservation.

Prerequisites

The MSHP is fully integrated into a college emphasizing design and graphic excellence. While HP students need not have fully developed skills in advance of matriculation we have found that students have benefitted from some previous exposure to:

1. Mechanical drawing/sketching
2. CAD graphics
3. Graphics software such as Adobe Creative Suite

These competencies can be demonstrated by previous course work or by portfolio/resume submission. Should any of these competencies for an admitted student be judged insufficient by the faculty, the program director may require the student to gain supplemental instruction prior to, or upon matriculation to, the MSHP degree program. Any credit awarded for such supplemental work will not be counted toward the required number of credit hours for the degree.

Admissions

Application to the master of science in historic preservation program is open to all students holding the bachelor's (undergraduate) degree from an accredited college (or its equivalent from a foreign institution).

Materials required

- A brief statement of interest (500 word max.)
- A compact portfolio (max. 15 pages 8.5" X 11") of writing samples, and optionally, graphic work and professional resume is strongly recommended.
- Submission of Graduate Record Exam (GRE) scores is recommended for applicants without evidence of prior successful graduate level accomplishment. [There is an expedited application procedure for current CU Denver students in another CAP masters program. Please inquire to the MS in historic preservation program director.]

Transfer Credit

Transfer credit of up to 12 credit hours (up to 15 credit hours for those seeking/holding a related master's degree from CU Denver) may be awarded for equivalent graduate (post-bachelor's) course work at the discretion of the program director and in keeping with CU Denver Graduate School rules.

Undergraduate Course Work

Undergraduate course work substantively equivalent to a MSHP required course may be accepted as a substitution for that course at the program director's discretion, but such substitution will not reduce the total number of credit hours required for the degree.

Program Requirements

The course of study is designed to accommodate the background and needs of both those students with substantial experience, and those new to the field. The curriculum is flexible but rigorous, requiring:

- Fifteen (15) semester hours of core courses in preservation
- Nine (9) hours in approved core design history courses
- Six (6) hour capstone requirement
- Fifteen (15) hours of electives

Students enrolling full-time in the 45 credit-hour curriculum typically complete the program in 3 or 4 semesters, or 18 months. However, course work other than the completion of the capstone requirement may be accomplished in a period of residency as short as 15 months. Students receiving significant transfer credit and those with a related degree may further reduce the time required for the MS in historic preservation degree.

Our program is compliant with National Council of Preservation Education Standards.

Required Core Courses

Choose 5 of the following 6 core preservation courses:

- HIPR 6010 - Preservation Theory and Practice
- HIPR 6210 - Survey, Significance, Recognition
- HIPR 6310 - Documentation, Analysis, Representation
- HIPR 6410 - Urban Conservation: Context for Reuse
- HIPR 6510 - Building Conservation

- HIPR 6610 - Reading the City

Choose 3 of the designated design history courses; some examples are:

- HIPR 6110 - Regionalisms & the Vernacular
- ARCH 6210 - History of American Architecture
- LDAR 5521 - History of Landscape Architecture
- URBN 6640 - History of the City

Total: 15+9=24 Hours

Electives

Choose 12-15 semester hours of related electives. Some examples are shown below. (Other courses may be approved as substitutions at the program director's discretion.)

Project Development

- URPL 6455 - Real Estate Dev. for Planners
- URPL 6661 - Real Estate Development Finance
- URPL 6665 - Urban Market Analysis
- URPL 6549 - Environmental Impact Assessment
- PUAD 5110 - Seminar in Nonprofit Management
- PUAD 5115 - Effective Grant Writing for Nonprofit and Public Sector Managers

Context of Planning & Design

- URBN 6642 - Design Policy/Regulation
- URBN 6641 - Design Process/Practice
- URPL 5020 - Planning Law and Institutions
- URPL 6400 - Community Development
- URPL 6405 - Urban Housing
- PUAD 5625 - Local Government Management
- PUAD 5626 - Local Government Politics and Policy

History

- GEOG 5350 - Environment and Society in the American Past
- HIST 5240 - National Parks History
- HIST 5229 - Colorado Historic Places
- HIST 5228 - Western Art and Architecture
- HIST 5231 - History in Museums
- HIST 5234 - Introduction to Public History
- HIST 5236 - Colorado Mining and Railroads
- HIST 5242 - Oral History
- HIST 5243 - Public History Administration
- HIST 5244 - Interpretation of History in Museums: Exhibits and Education

- HIST 5810 - Special Topics **Heritage Tourism**

Preservation Design

Approved studio (4) + seminar (2)

AND/OR

Additional built environment history/practice courses

NOTE: HIPR prefix electives HIPR 6610 Reading the City, HIPR 6710 Working Landscapes, HIPR 6810 Preservation Workshop may be counted toward any of the elective concentrations.

Total: 12-15 Hours

Capstone Work

Choose either 1. Professional Project and additional requirements, or 2. Thesis and additional requirements.

1. HIPR 6851 - Professional Project

Preceded by **one** of the following:

- Preservation Design Studio + Seminar (HIPR 6170-71)
or
- HIPR 6930 - Internship for 3 semester hours of credit
or
- Pre-approved travel education (may include programs to Italy, Turkey, Scandinavia, or domestic programs, typically Chicago or the rural West)

2. HIPR 6951 - Thesis

With LDAR 6949 - Research Tools, Strategies, Methods

Total: 6-9 hours

History MA

► Graduate School Rules apply to this program

The master of arts in history requires 36 semester hours (12 courses). Students applying for admission to the program should have some background in history, though not necessarily a BA in the subject. The department encourages applications from individuals of any age interested in resuming their education. Graduate students in history develop skills in critical thinking, writing and independent research. Our program prepares students for a wide variety of professions, including teaching, government service, museum and archive management and historic preservation, as well as further degree work in history, law, librarianship and business. The department expects that students graduating with an MA in history will master the following general skills for their degrees:

- The ability to pursue independent historical research projects
- The ability to analyze historiographical arguments
- The ability to analyze primary documents and develop arguments from them
- The ability to create bibliographies using archival, library, and Internet resources
- The ability to write in a variety of formats, including historiographical essays, book reviews, and research papers

Students will also master knowledge of the basic historical content of both their major and minor fields, and an understanding of the historiographies and historical methods in their major and minor fields.

Admission Requirements

- In addition to the general admission requirements of the Graduate School, the Department of History requires an undergraduate GPA of at least 3.25.
- All applicants to the history program must take the GRE. GRE scores form a part of the department's consideration of students' qualifications.
- Applicants are required to submit a sample of written work, usually a term paper or project of similar length.
- All applications must include three letters of recommendation, preferably from college or university faculty.
- Applicants should address any gaps, weaknesses, or special circumstances in their academic records in the statement of purpose portion of the application. In special circumstances, the department may modify its admission standards.

APPLICATION DEADLINES

April 1	Fall admission
October 1	Spring admission

Admission decisions are made by a graduate committee composed of the graduate advisor and faculty representing fields in U.S., European, global, and public history.

Graduate School Policies

All history MA students are subject to Graduate School policies related to graduate study, as well as to all relevant university policies. These policies cover such topics as time limits on degree completion, changing degree programs, incomplete grades, and more. Further information on these policies can be found in the Graduate School section of this online catalog.

Transfer Credits

With approval from the graduate advisor and the appropriate faculty, students may transfer up to nine graduate-level credits accrued before enrollment in the CU Denver MA history degree program, provided that they earned a grade of *B+* or better in these courses. Students must submit a syllabus for each course they wish to transfer, and faculty may require students to complete additional assignments to meet the expectations of the department. The department will not accept transfer of courses comparable to HIST 6013, Introduction to the Professional Study of History.

Grade Requirements

The history department requires that graduate students maintain a cumulative GPA of 3.0 and will not accept grades lower than *B-* (2.7) toward the completion of course work for the master's degree. Students who earn less than a *B-* in HIST 6013 must retake the class.

Residency Requirements

The history department requires a residency of at least one academic year for the degree.

Graduate Advising

Upon admission, students will sign a check list indicating their understanding and acceptance of the department's expectations. Early in their first semester, students should contact the history department graduate advisor to discuss their path through the program and to receive advice regarding the selection of major and minor fields.

Degree Tracking Responsibility

Although faculty will provide reasonable guidance, it is up to students to monitor their own progress through the program in consultation with the graduate advisor and their major advisor; this includes knowledge and understanding of application and graduate deadlines, degree requirements, comprehensive exam expectations and processes, thesis guidelines, etc.

Choosing Advisors and Fields of Study

All history MA candidates choose a major field and a minor field. Students will take courses in these fields (see Degree Requirements below) and will be tested in these fields (see Comprehensive Examinations). After consulting with the graduate advisor, students are responsible for securing two field advisors, one to oversee their progress in the major field, the other to oversee their minor field. All students should have chosen their fields and advisors by the end of the semester in which they have complete 12 credit hours.

Major Fields, Minor Fields, and Concentrations

The MA in history seeks to provide students with a balance of breadth and depth in the study of history. Major fields are broad areas of study within which students gain a general picture of historical processes. Concentrations provide focus for developing expertise within the major,

either regionally or thematically. Minor fields provide a complementary or comparative area and must sit outside the major field. *[Please note that only the primary major field will be noted on the student's transcript; it will not include additional concentrations or minors.]*

Advisors and students together will work out Plans of Study, which indicate the courses students intend to take to meet their requirements, based on their selection of major and minor fields. *Students should make every effort to enroll in courses which best fit their major field, major concentration and minor field.*

Students can choose to major in one of the following four fields:

- European History
- Global History
- Public History
- U.S. History

The department has core readings for Public History and US History each of the major fields. Students will draw on these readings for their comprehensive exams. Students working A in all fields will coordinate their readings with their major and minor advisors.

Major Field Concentrations

Students work with advisors to select one of the major field concentrations listed below. Concentrations provide thematic or regional focus to a broad geographical major (e.g. for the global history major, students could concentrate on trade, borders, imperialism, etc. or any of the areas of regional expertise of our faculty). Readings for the major field concentration are in addition to the core reading list.

Minor Fields

Students can define their minor field as a specialization within one of the four major fields or as topics from the list of concentrations.

Regional Concentrations/Minors	United States History Chronological Concentrations/Minors	Topical Concentrations/Minors (these can be regional or global and must be negotiated with students' field advisors)	
American West	Colonial and Federal	Colonialism and Imperialism	Nation and State
Britain	Nineteenth Century	Cultural and Social History	Politics
East Asia	Twentieth Century	Diplomatic History and Foreign Policy	Race and Ethnicity
Germany		Economic and Business History	Science, Medicine, and
Islamic World	Public History Concentrations	Gender, Women, and Sexuality	Technology

Latin America	Historic Preservation	Globalization	Urban History
South Asia	Museum Studies	Intellectual History	War and Revolution
Western Europe	State and Local History	Labor	

PUBLIC HISTORY MA MAJOR PROGRAM

Degree Requirements

All history MA students must have a major field and a minor field, and they must complete half of their course work at the 6000 level.

Required Introductory Course

- HIST 6013 - Introduction to the Professional Study of History

Total: 3 Hours

Major Field

Core course in Major Field (3-6 semester hours)

Public history and U.S. history major fields require core courses covering major approaches and themes. The core courses familiarize students with the field in a broad sense.

Research Seminars (3-6 semester hours)

Research seminars focus on students' development of an original, primary research paper. One 3-semester-hour research seminar is required of all students. A second research seminar is required for students not in public history; the second 3 semester hours can be taken within the major or minor field.

Major Electives (9-12 semester hours)

Electives are made up of courses in the major and concentration, including readings courses, which address specific field historiographies, and optional extended research credits. Students who choose to do a thesis may apply 6 thesis semester hours (HIST 6950) toward the major electives requirement.

Total: 18 Hours

Minor Field

Minor Electives

Electives are made up of courses in the minor field, including readings courses, which address specific field historiographies, or research seminars.

Total: 12 Semester Hours

Open Elective

Students may use the open elective to explore a course outside their major or minor or to do extra course work in one of their fields.

Total: 3 Hours

Degree Total: 36 Hours

INDEPENDENT STUDY AND/OR INTERNSHIP

Candidates may register for up to 6 hours of internships or independent study, only one of which may be at the 6000-level. Students will not be allowed to fulfill the research seminar requirement with an independent study or internship. Any independent study or internship at the 6000-level needs the permission of the graduate advisor. Students interested in pursuing an independent study or internship must find a faculty member willing to oversee their work, and they should expect the workload to equal or exceed that required for other courses at the same level.

- HIST 5840 - Independent Study: History
- HIST 6840 - Independent Study: HIST
- HIST 6939 - Internship

COMPREHENSIVE EXAMINATIONS

All history MA candidates must pass a comprehensive examination in the major and minor fields after the completion of course work and generally before embarking on a thesis, curriculum project or public history project. The comprehensive exam evaluates students' knowledge of their course work and their reading lists for their major, minor and concentration. The exam consists of a take-home written section, with broad essay questions in both the major and minor fields; this is followed by an oral exam with the student's faculty committee. In answering their exam questions, students are expected to construct arguments and to show mastery of the historiographies, narratives and historical content in their fields. The comprehensive exam is administered and evaluated by a committee of the major advisor, the minor advisor and an outside reader from the history faculty. Students should expect to read 80-100 books combined, as well as significant articles, in their major and minor fields.

Master's Degree Extended Research Options

The MA program in history offers a set of courses in which students can develop extended research interests. Students must select an advisor and develop a proposal for a specific research agenda in the semester before beginning work on a project.

REQUIRED PUBLIC HISTORY THESIS (HIST 6950) OR PROJECT (HIST 6952)

Students majoring in public history must complete either a thesis (6 semester hours) or a project (usually 3 semester hours).

OPTIONAL THESIS FOR STUDENTS IN U.S., GLOBAL AND EUROPEAN HISTORY (HIST 6950)

Students majoring in U.S., global or European history can choose to write a thesis (6 semester hours in their major field).

OPTIONAL ADVANCED HISTORY CURRICULUM DEVELOPMENT (HIST 6951)

Students who undertake their master's program when they are already teachers or who are teachers-in-training can choose to construct curriculum projects relevant to their teaching practice. See the separate section below on "Opportunities for Teachers and Teachers-in-Training."

- HIST 6950 - Master's Thesis
- HIST 6951 - Masters Project: Advanced History Curriculum Development
- HIST 6952 - Master's Project: Public History

Thesis Requirements

Students writing theses are expected to develop an original research agenda resulting in an extended paper. Students work with their major field advisor, who will help guide them through the process of research and writing. Students will enroll for six credit hours in HIST 6950 to complete their theses over one or more semesters. Before registering for HIST 6950, students should have a thesis proposal and initial bibliography approved by their advisor.

A thesis is evaluated by a committee of three, including the major advisor and two other faculty members chosen by the student in consultation with the major advisor. Upon completion of the thesis, the student meets with the committee members, who ask questions about the research and conclusions which the student must defend. In many instances, the committee will require further revisions, sometimes major in scope, before the thesis is accepted and cleared for submission to the Graduate School in fulfillment of degree requirements.

Project Requirements

In lieu of a thesis, public history majors may choose to enroll in one semester of HIST 6952 to complete a public history project. Projects, which are usually conducted in collaboration with a public history organization, can entail creating an exhibit, organizing a museum or archival collection, conducting a preservation survey or similar activities. Students are required to prepare an analytical paper describing the process and results of their project.

Opportunities for Teachers and Teachers-in-Training

Curriculum Projects

Licensed teachers and teachers-in-training enrolled in the history graduate program may choose to complete a curriculum development project. Students arrange curriculum development projects with a sponsoring faculty member. Generally, students are expected to develop and submit a complete course curriculum plan for each 3-semester-hour project. Projects need to show evidence of familiarity with the relevant historiographies and primary sources. Students may apply the hours from HIST 6951 to either the major field or the minor field, depending on the project subjects. Curriculum plans must meet minimum criteria established by the history department in the document Advanced History Curriculum Development Projects.

- HIST 6951 - Masters Project: Advanced History Curriculum Development
(3 or 6 semester hours in their major field, or 3 semester hours in their major and possibly 3 semester hours in their minor, if a student elects to do a second project)

Secondary Teacher Licensure

Students interested in secondary teacher licensure should consult with the School of Education and Human Development. See the Urban Community Teacher Education Program for information.

Humanities MH

- Graduate School Rules apply to this program

Requirements for Admission

In addition to the general requirements of the Graduate School governing acceptance to a master's degree program, applicants must submit the following:

- evidence of a bachelor's degree
- two official copies of all transcripts, with an overall GPA of at least 3.0 out of 4.0
- a writing sample
- three letters of recommendation (at least two from academic sources)
- appropriate undergraduate training or professional background, or indicators that supply evidence of ability to pursue the MH degree
- a typed statement specifying the goal of advanced study in the humanities expressed in clear, correct and effective English
- standardized test scores are not required, but will be considered if submitted

After meeting all other requirements for admission, applicants may be required to have an interview to discuss their interest in the program and their plans for study. For out-of-state applicants, an appropriate substitute for the interview may be determined by the director.

Provisional admission:

Applicants may be admitted as provisional-status graduate students if their complete record indicates a high probability of success.

Nondegree students:

Potential applicants may take graduate-level courses as nondegree students (unclassified student with a bachelor's degree) if they:

1. Wish to strengthen their record in order to demonstrate that they can successfully complete courses in the program
- or-
2. Wish to start courses in the program prior to completing their application.

Up to 12 semester hours of graduate-level work taken as a nondegree student may be accepted by the program once a student has been admitted to the program (the 12-hour limit also includes graduate work from another university). For further information on nondegree graduate student status, see the Information for Graduate Students section of this catalog.

International Students:

International students must also meet CU Denver requirements for international admission. See the Information for International Students section of this catalog or call 303-315-2230 for further information.

Degree Requirements

The Master of Humanities (MH) program offers graduate-level interdisciplinary studies through a 36-credit-hour degree plan. Students may pursue a general MH degree or focus their studies and course work on one of two tracks: philosophy and theory OR visual studies. Each option is detailed below.

All courses credited toward the MH degree must be taken at CU Denver over a period not exceeding five years (a maximum of 12 graduate semester hours may be transferred from other institutions subject to the MH director's approval). At least a *B* average (3.0) must be maintained in all graduate-level course work for the degree. A grade of *C+* or below will not be counted toward the degree. Each student's program is supervised by a faculty advisor. All independent study, project and thesis contracts must be approved in advance by one of the program directors. A total of two independent study courses and two 4000-level undergraduate courses may count toward the degree. Only one graduate-level online course (up to 3 hours) may be taken toward the degree. The rest must be 5000-level or above courses offered through various departments. All students must pass an oral comprehensive exam in order to graduate.

General Master of Humanities Degree

Students pursuing the general MH degree have the opportunity to fashion a course of study based on their individual interests and goals. Students complete three required core courses and, in consultation with a faculty advisor, choose two or three academic disciplines as areas of concentration. Students who select a thesis (6 semester hours) will submit a thesis proposal after completing 30 hours of course work. In the case of a project (3 semester hours), students will submit a project proposal after 33 hours. All students culminate with the completion of a final project or thesis and an oral exam defense of the final work.

GENERAL MH REQUIREMENTS

Three interdisciplinary seminars form the core course work for the MH degree:

- HUMN 5025 - Methods and Texts of the Humanities
(Must be taken during the first year of entrance into the program. **Offered fall only.**)
Mid-Program Seminar, an interdisciplinary seminar which is approved for the student's program by the program director (note that the Mid-Program Seminar **must** have a HUMN prefix).
- HUMN 5924 - Directed Research and Reading in Interdisciplinary Humanities
(A final seminar that provides background reading, theory and research approaches for students to develop a thesis or project; student must have completed at least 24 hours of course work and must register for the course via a schedule adjustment form with instructor approval. **Offered spring only.**)
Total: 9 Hours

Electives

Additionally, students must complete a total of 21-24 semester hours comprising a coherent selection of courses from a variety of disciplines. All courses for the self-structured portion of the program must be selected with the approval of the MH program director.

A total of two independent study courses and two 4000-level undergraduate courses taken when enrolled in the program may count toward the degree. All independent study contracts must be approved by the program director. The remaining course work must be 5000-level or above courses offered through various departments.

Students completing a project take 24 hours of electives, while thesis students complete 21 hours of electives.

Total: 21-24 Hours

Thesis or Project

A thesis (6 semester hours) or a final project (3 semester hours), which must include a substantial scholarly paper and may include a creative exercise involving at least two disciplines. In order to proceed with a thesis or project, all students must submit to the program a proposal to be approved by three faculty members of the committee and the program director.

- HUMN 5950 - Master's Thesis
- HUMN 5960 - Master's Project

Total: 3-6 Hours

Oral Exam

An oral exam before a committee of three faculty members in order to graduate.

General MH Degree Total: 36 Hours

OPTIONAL MH TRACKS

Students may also focus in one of the new formal tracks in the Master of Humanities program: philosophy and theory or visual studies. In addition to the three MH core required courses, students must fulfill the minimum track requirements and must complete a total of 36 credit hours in order to complete the degree. These are detailed in the track descriptions that follow:

Philosophy and Theory Track

The philosophy and theory track in the Master of Humanities degree program offers students an interdisciplinary approach to studying philosophy, critical theory and related theories of criticism and analysis in various humanities disciplines. Students who pursue this concentration may focus their course work variously in philosophy, social theory, literary theory and criticism, cultural criticism, intellectual history and political theory. In this track, students develop

analytic skills that allow them to integrate knowledge and modes of thinking that reflect the demands of critical inquiry.

By combining philosophical theory and critical thinking in one interdisciplinary track, students will be prepared to pursue advanced academic or professional degrees, secondary and higher education teaching, careers in art and literature, criticism, law, media and other careers with demand for critical thinking.

Beyond the required core MH courses (9 hours), a minimum of 21 credit hours in philosophy/theory-related work must be completed. This must include one required methodology course to be determined with the Master of Humanities advisor; 12-15 credit hours of philosophy/theory-related courses; and 3-6 hours of project or thesis work on a philosophy/theory-related topic.

TRACK REQUIREMENTS

Required Core MH Courses

- HUMN 5025 - Methods and Texts of the Humanities
(Must be taken during the first year of entrance into the program. **Offered fall only.**)
Mid-Program Seminar, an interdisciplinary seminar which is approved for the student's program by the program director (note that the Mid-Program Seminar **must** have a HUMN prefix).
- HUMN 5924 - Directed Research and Reading in Interdisciplinary Humanities
(A final seminar that provides background reading, theory and research approaches for students to develop a thesis or project; student must have completed at least 24 hours of course work and must register for the course via a schedule adjustment form with instructor approval. **Offered spring only.**)

Total: 9 Hours

Additional requirements

- ♦ Philosophy/theory methods course (3 credit hours): Must be approved by the Master of Humanities Director or Associate Director.
- ♦ Minimum of 12-15 credit hours of focused course work in philosophy/theory related courses (see suggested electives below).
- ♦ 3-credit project or 6-credit thesis on a philosophy/theory topic, written in consultation with the required 3-person committee.

Total: 21 Hours

Suggested Electives:

(The following is not a comprehensive list. See your advisor to discuss these and other elective courses for the track.)

- ANTH 6103 - Current Theory in Ethnography
- COMM 5025 - Philosophy of Communication
- COMM 5041 - Theories and Methods in Interpersonal Communication
- COMM 5111 - Theories of Leadership
- COMM 5605 - Rhetorical Theory for Technical Communication
- ENGL 5420 - Film Theory and Criticism
- ENGL 5735 - Philosophy and Literature
- HUMN 5013 - Philosophical Problems in the Social Sciences and the Humanities
- HUMN 5020 - Elements of Social Thought

- HUMN 5550 - Paris 1910: Art, Philosophy and Psychology
- HUMN 5650 - Reflections on Modernity
- HUMN 5720 - Sexuality, Gender and Their Visual Representation
- HUMN 5750 - Philosophical Psychology
- HUMN 5984 - Topics: Interdisciplinary Humanities
- PHIL 5000 - 19th Century Philosophy
- PHIL 5040 - Skeptic and Believer
- PHIL 5101 - Pragmatism: Classical American Philosophy
- PHIL 5220 - Aesthetics and the Philosophy of Art
- PHIL 5242 - Bioethics
- PHIL 5250 - Environmental Ethics
- PHIL 5260 - Philosophy of Law
- PHIL 5300 - Philosophy of Mind
- PHIL 5470 - Concepts of the Soul
- PHIL 5600 - Philosophy of Religion
- PHIL 5655 - Differing Concepts of God
- PHIL 5730 - Philosophy and Literature
- PHIL 5735 - Rationalism
- PHIL 5740 - Empiricism
- PHIL 5750 - Introduction to Phenomenology
- PHIL 5770 - Hegel
- PHIL 5780 - Heidegger
- PHIL 5790 - Nietzsche
- PHIL 5800 - Plato
- PHIL 5810 - Aristotle
- PHIL 5820 - Hume
- PHIL 5830 - Kant
- PHIL 5833 - Existentialism
- PHIL 5900 - John Dewey
- PHIL 5920 - Philosophy of Media and Technology
- PHIL 5933 - Philosophy of Eros
- PSCI 5005 - Political Theory After 9/11
- PSCI 5417 - Seminar: Practical Utopias
- PSCI 5457 - Seminar: American Political Thought
- RLST 5060 - Philosophy of Religion
- SOCY 5014 - Classical Sociological Theory
- WGST 5306 - Survey of Feminist Thought
- WGST 6010 - Methods and Theories of Feminism and Gender Studies

Visual Studies Track

The visual studies track in the Master of Humanities program offers students focused studies in disciplines that apply critical analysis to our visual world, such as art history, museum studies, film studies, new media studies and cultural studies. In a world whose work forces and creative citizenry are focused on the growth and use of visual technologies, visual literacy with sophisticated analytic skills is critical. Successful engagement with an image-driven and

technological society necessitates an understanding of the use and encoding of imagery. The visual studies track provides students with the critical tools for engaging with advanced history, concepts and philosophies especially centered on visual culture, art history, visual communication studies, film studies and new media studies.

Areas of application for such studies include museum and cultural institutions, curatorial and research positions, arts administration, non-profit community-based organizations, advertising, promotion and marketing. The program is likewise relevant for students interested in pursuing doctoral work in related fields. Upon graduation, students will be prepared to enter the job market immediately, or they may use this track as a steppingstone toward a Ph.D. or another advanced degree.

Beyond the required core MH courses (9 hours), a minimum of 21 credit hours in visual studies-related work must be completed. This includes one 3-credit methodology course in visual studies, and 12-15 credit hours of visual studies-related courses; and 3-6 hours of project or thesis work on a visual studies-related topic.

TRACK REQUIREMENTS

Required Core MH Courses

- HUMN 5025 - Methods and Texts of the Humanities
(Must be taken during the first year of entrance into the program. **Offered fall only.**)
Mid-Program Seminar, an interdisciplinary seminar which is approved for the student's program by the program director (note that the Mid-Program Seminar **must** have a HUMN prefix).

- HUMN 5924 - Directed Research and Reading in Interdisciplinary Humanities
(A final seminar that provides background reading, theory and research approaches for students to develop a thesis or project; student must have completed at least 24 hours of course work and must register for the course via a schedule adjustment form with instructor approval. **Offered spring only.**)

Total: 9 Hours

Additional requirements

- ♦ Visual studies methods course, chosen from the following list (substitutions must be approved by the Master of Humanities director or associate director). If not taken for the methods requirement, any of these three may be taken as an elective.
 - ENGL 5420 - Film Theory and Criticism
 - FINE 5790 - Methods in Art History **(Offered every fall)**
 - HUMN 5660 - Visual Arts: Interpretations and Contexts **(Offered every other spring)**
- ♦ Minimum of 9-12 credits of focused course work in visual studies-related courses (see suggested electives below)
- ♦ 3-credit project or 6-credit thesis on a visual studies topic, written in consultation with the required 3-person committee.

Total: 18 Hours

Note: Students interested in pursuing doctoral work in related fields are strongly encouraged to develop foreign language competency in one or two of the following languages: French, German, Spanish or a language related to the preferred area of study.

Suggested Electives

(The following is not a comprehensive list. See your advisor to discuss these and other elective courses for the track.)

- COMM 5230 - Nonverbal Communication
- COMM 5621 - Visual Communication
- COMM 5830 - Visual Principles in Technical Communication
- ENGL 5770 - Topics in English: Film and Literature
- ENGL 6001 - Critical Theory in Literature and Film
- FINE 4990 - Contemporary Art: 1960 to Present
- FINE 5524 - Topics in Art History
- FINE 5610 - Pre-Columbian Art
- FINE 5620 - American Art
- FINE 5632 - History of Digital Media
- FINE 5650 - Nineteenth-Century Art
- FINE 5660 - Twentieth-Century Art
- FINE 5670 - Greek and Roman Art
- FINE 5680 - Art of the Middle Ages
- FINE 5690 - Renaissance Art
- FINE 5710 - Baroque and Rococo Art
- FINE 5730 - Arts of Japan
- FINE 5750 - Arts of China
- FINE 5770 - Art of India and Southeast Asia
- FINE 5990 - Contemporary Art:1960-Present
- HIST 5228 - Western Art and Architecture
- HIST 5231 - History in Museums
- HIST 5232 - Historic Preservation
- HUMN 5220 - Aesthetics and the Philosophy of Art
- HUMN 5550 - Paris 1910: Art, Philosophy and Psychology
- HUMN 5720 - Sexuality, Gender and Their Visual Representation
- PHIL 5220 - Aesthetics and the Philosophy of Art
- PHIL 5920 - Philosophy of Media and Technology

Information and Learning Technologies MA

Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Website: www.ucdenver.edu/education/alps

Faculty

Information about Information ILT faculty is available online at www.ucdenver.edu/education/alps.

Master's Degree

The ILT master's program helps people design and use various resources and technologies for learning. Applying sound principles of instructional design, graduates can integrate a variety of learning technologies into their teaching including multimedia presentations, social-networking tools and tools for authoring, production, assessment and participation. ILT students learn to implement learning technologies in specific professional settings—either K–12 schools or adult learning settings such higher education or corporate environments.

Students choose tracks according to their professional goals:

- The instructional design track prepares students to work in adult learning settings such as business, higher education, health care, nonprofits or government.
- The eLearning track prepares educators to develop online courses and learning materials and to teach and facilitate learning in those eLearning environments.
- The K–12 teaching track helps teachers integrate technologies into schools and classrooms with a focus on improving teaching practices. Teachers may earn a state endorsement in instructional technology.

Once admitted, students begin a plan of study that typically takes about 1-1/2 to 3 years to complete while working full-time. Some students are organized into a cohort to complete courses together at a fixed sequence. Other students select courses at a more flexible pace. Consult the ILT website for more information about specific plans of study, course offerings and expectations of cohort groups.

Admission Requirements

Admission decisions are based on undergraduate and graduate grades, external letters of recommendation, writing samples and fit with the program as reflected in a letter of intent. In some cases, results of a test (GRE) are also required. Prospective students should consult the ILT program website for complete admission procedures and requirements.

Professional Expectations

All students in the ILT program are expected to show a strong commitment to the program and to maintain high academic, professional and ethical standards. Inappropriate or unprofessional conduct is cause for discipline or dismissal from the program.

Technology Expectations

The ILT program uses computers and related technologies either as a focus or a tool for learning. Students are expected to use their campus e-mail account and check it frequently. In addition to on-campus facilities, ILT students need convenient access to Internet-connected computers off campus, either at their place of work or at home. In addition to textbooks, software purchases may be required or recommended for specific classes.

Program Requirements

Instructional Design and Adult Learning

Students complete 30 graduate semester hours of course work from a set of core courses and approved electives within and outside the ILT program. The plan of study is nationally accredited by NCATE and AECT and is consistent with standards for instructional designers. Students should consult the ILT program website or their advisor for complete program requirements.

eLearning Design and Implementation

Students may complete a 30 semester hours online master's degree with an eLearning emphasis. The focus of this master's track is on the planning, design, development, delivery, facilitation and evaluation of online learning resources and programs. A certificate is also available in this area, constituting the first-year requirements of the master's program. Students should consult the ILT program website or their advisor for complete program requirements.

K-12 Teaching

Students may select a master's program and/or an endorsement program in instructional technology within the K-12 Teaching track. For the full master of arts degree, students complete 30 graduate semester hours of course work consisting of a core set of courses and approved electives. The plan of study is accredited by NCATE and AECT and is designed in line with standards of the Colorado Department of Education. Students may also complete an endorsement-only program in instructional technology consisting of 24 graduate semester hours.

Comprehensive Examination for all ILT Students

The comprehensive exam consists of a professional portfolio where in students demonstrate program competencies through work products and related accomplishments. The portfolio is created throughout the student's program and submitted for faculty review the final semester. For more information, see the ILT website.

Information Systems MS

Program Director: Jahangir Karimi

Telephone: 303-315-8430

E-mail: Jahangir.Karimi@ucdenver.edu

Web site: <http://business.ucdenver.edu/Disciplines/InfoSystems/InfoSystemsMS.htm>

Faculty

Professors:

James Gerlach, PhD, Purdue University

Jahangir Karimi, PhD, University of Arizona

Associate Professors:

Dawn Gregg, PhD, Arizona State University

Michael Mannino, PhD, University of Arizona

Ronald Ramirez, PhD, University of California-Irvine

Judy Scott, PhD, University of California-Irvine

Steven Walczak, PhD, University of Florida

Assistant Professors:

Zhiping Walter, PhD, University of Rochester

Senior Instructors:

Eric Thompson, MS, University of Colorado

Instructor:

Linda Fried, JD/LLM, University of Miami

The Master of Science in Information Systems (MSIS) program at the Business School meets industry needs by providing specializations. The program prepares students for career paths in systems development and management services, enterprise application services, business intelligence, health information technology, information security audit and control, business consulting and development and consumer products and services. Whether students aim to be systems analysts or designers, software engineers, applications programmers, database administrators, Web developers, systems integrators, project managers, LAN administrators or application and technology consultants, the MSIS program provides the necessary knowledge and skills. This entire MS in Information Systems can be completed online.

The MSIS program offers a wide choice of courses. The course work consists of common body of knowledge courses plus 30 semester hours, which includes a choice of a specialization. Each specialization includes two required courses, 6 courses from a list specific to your chosen specialization and two elective courses. Candidates for the MS degree are not required to take a comprehensive examination or to complete a thesis in the major field.

A. Common Body of Knowledge (CBK)

Waivers of CBK courses are possible. The entire CBK may be waived if the student has completed an undergraduate business degree or MBA from an AACSB-accredited college or university within the last 10 years. Specific courses may be waived based on a case-by-case evaluation of undergraduate or graduate course work in business completed at a regionally accredited college or university within the last 10 years.

Four of the following courses are required if you do not meet the above waiver policy.

- BUSN 6530 - Data Analysis for Managers
- BUSN 6550 - Analyzing and Interpreting Accounting Information
- BUSN 6560 - Marketing Management
- BUSN 6630 - Management of Operations
- BUSN 6640 - Financial Management

Total: 12 Hours for Common Body of Knowledge (CBK)

B. Information Systems Specializations

The five specializations that accompany the MS in Information Systems are designed to provide the fundamental knowledge necessary for a career as an IS professional. Up to 9 semester hours may be transferred from an AACSB international accredited graduate school and applied to the information systems specializations upon approval. The IS specializations provide students with a set of related courses necessary to acquire skills and expertise within a specific area in the development, management and use of information technology applications. Students are required to choose one specialization upon admission to the MSIS.

Accounting and Information Systems Audit and Control (AISAAC) Specialization

Recently, new regulatory environments have required companies to provide better documentation of their accounting and IT systems to improve the management and disclosure of their business processes for better financial and regulatory controls. Accounting and IT professionals have significant roles in audit and control activities, since they control the systems that monitor and report on finance, planning and operations. The courses within this specialization cover business-process management and financial controls; the emerging trends and practices in privacy and security; the strategies for integrating governance and compliance; and the IT organization's financial and business intelligence services. These courses will focus on how to leverage the existing IT infrastructure to establish quality in financial and internal audit processes and address the regulatory issues associated with reporting, consolidation and document/content management more effectively and completely.

Prerequisite

- ACCT 6030 - Financial Accounting

Required Courses: (24 hours)

- ACCT 6020 - Auditing Theory
 - ISMG 6040 - Business Process Management
 - ISMG 6060 - Analysis, Modeling and Design
 - ISMG 6080 - Database Management Systems
 - ISMG 6180 - Information Systems Management and Strategy
 - ISMG 6220 - Business Intelligence Systems
 - ISMG 6420 - Global Enterprise Systems
- Either**
- ACCT 6510 - Accounting and Information Systems Processes and Controls
- OR**
- ISMG 6510 - Accounting and Information Systems Processes and Controls

AISAAC Electives (6 hours)

Select 2 of the following courses:

- ACCT 6620 - Advanced Auditing
- ACCT 6470 - Internal Auditing
- ACCT 6340 - Financial Statement Analysis
- ACCT 6360 - Fraud Examination
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6450 - IT Project Management

Business Intelligence Specialization

Business Intelligence (BI) systems combine operational data with analytical tools to present complex and competitive information to planners and decision makers. The objective is to improve the timeliness and quality of inputs to the decision process. BI is used to understand the capabilities available in the firm; the state-of-the-art, trends, and future directions in the markets, the technologies, and the regulatory environment in which the firm competes; and the actions of competitors and the implications of these actions. With this specialization, you get the necessary skills and knowledge in real-time data warehousing, data visualization, data mining, online analytical processing, customer relationships management, dashboards and scorecards, corporate performance management, expert and advanced intelligent systems, and hands-on experience with leading BI tools.

Required Courses: (6 hours)

- ISMG 6080 - Database Management Systems
- ISMG 6220 - Business Intelligence Systems

BI Electives: (18 hours)

Select 6 of the following courses:

- DSCI 6828 - Data Mining: Predictive Modeling
- ISMG 6180 - Information Systems Management and Strategy
- ISMG 6420 - Global Enterprise Systems
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6480 - Data Warehouse and Administration
- ISMG 6810 - Business Intelligence in Healthcare **OR**
- ISMG 6820 - Business Intelligence and Financial Modeling
- MKTG 6090 - Customer Relationship Management

Enterprise Technology Management (ETM) Specialization

This specialization focuses on information technology as the prime driver of business strategy. It focuses on the strategic, technological, financial and organizational issues involved with the effective management of information technology within an enterprise. The courses in this specialization cover the emerging technologies and the evolving roles and importance of IT in modern organizations; IT-enabled organizational processes and knowledge management; methods to develop, acquire and implement information systems; implementing and managing complex IT projects; security and privacy issues associated with IT.

Required Courses: (6 hours)

- ISMG 6040 - Business Process Management
- ISMG 6180 - Information Systems Management and Strategy

ETM Electives: (18 hours)

Select 6 of the following courses:

- ISMG 6080 - Database Management Systems
- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6220 - Business Intelligence Systems
- ISMG 6420 - Global Enterprise Systems
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6450 - IT Project Management
- ISMG 6460 - Emerging Technologies

eHealth and Healthcare Service Entrepreneurship Specialization

Recently, the health care industry has shifted its focus from using proprietary and expensive IT solutions to more innovative IT applications in electronic health records (EHR) and other health information technology (HIT) innovations for sharing information effectively to help manage health care crisis. The courses within this specialization cover the evolving roles and importance

of IT in the health care industry; the innovative IT applications for delivering health care with reduced cost and increased quality; the management of health care using effective IT systems; and the security and privacy issues associated with health information. These courses will focus on how IT-enabled health care organizations can integrate information from various resources in order to deliver innovative IT solutions to meet unique requirements of health care industry.

Common Body of Knowledge (CBK) 12 hours

Select 4 of the following courses:

- BUSN 6530 - Data Analysis for Managers
- BUSN 6550 - Analyzing and Interpreting Accounting Information
- BUSN 6560 - Marketing Management
- BUSN 6630 - Management of Operations
- BUSN 6640 - Financial Management

Information Technology Required Courses: (12 hours)

- ISMG 6060 - Analysis, Modeling and Design
- ISMG 6080 - Database Management Systems
- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6460 - Emerging Technologies

Bio-innovation and Entrepreneurship Electives: (12 hours)

Select 4 of the following courses:

- ENTP 6801 - Building Biotechnology
- ENTP 6802 - Regulatory Environment of Life Science Innovation
- ENTP 6824 - Entrepreneurial Financial Management
- ENTP 6848 - Leadership in New Ventures
- ENTP 6854 - Design & Manage Entrepreneurial Organizations

Health and Information Technology Electives: (6 hours)

Select 2 of the following courses:

- HLTH 6071 - Introduction To Health Information Technology
- HLTH 6072 - Fundamentals of Health Information Technology Management
- ISMG 6020 - .Net Programming Fundamentals
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6810 - Business Intelligence in Healthcare

Enterprise Risk Management (ERM) Specialization

ERM Required Courses: (9 hours)

- ISMG 6180 - Information Systems Management and Strategy
- FNCE 6809 - Principles of Risk and Insurance
- FNCE 6909 - Corporate Risk Management

ERM Electives: (15 hours)

Select 5 of the following courses:

- FNCE 6129 - Practical Enterprise Risk Management
- ISMG 6420 - Global Enterprise Systems
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6450 - IT Project Management
- ISMG 6820 - Business Intelligence and Financial Modeling
- ISMG 6830 - IT Governance and Service Management

Information Systems/Risk Management Elective (3 hours)

Select any course numbered 6000 or higher with an ISMG or FNCE prefix or an internship.

Free Elective: (3 hours)

Select any course numbered 6800 or higher with BUSN prefix or any course numbered 6000 or higher with a prefix of ACCT, DSCI, ENTP, FNCE, HLTH, INTB, ISMG, MGMT, or MKTG.

Technology Innovation and Entrepreneurship (TIE) Specialization

TIE Required Courses: (12 hours)

- ENTP 6842 - New Concept Development
- ENTP 6020 - The Business Plan
- ENTP 6021 - Corporate Entrepreneurship
- ISMG 6460 - Emerging Technologies

TIE/Information Systems Electives: (18 hours)

Select 6 courses from the two elective lists below for a total of 18 hours.

Select 2 or 3 of the following Entrepreneurship electives:

- ENTP 6822 - Legal and Ethical Issues of Entrepreneurship
- ENTP 6824 - Entrepreneurial Financial Management
- ENTP 6826 - International Entrepreneurship
- ENTP 6848 - Leadership in New Ventures

- ENTP 6854 - Design & Manage Entrepreneurial Organizations
- ENTP 6862 - Strategic Web Development

If 2 ENTP courses were selected above, select 4 of the following Information Systems electives; if 3 ENTP courses were selected above, select 3 of the following Information Systems electives:

- ISMG 6060 - Analysis, Modeling and Design
- ISMG 6080 - Database Management Systems
- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6220 - Business Intelligence Systems
- ISMG 6240 - Website Development Practice and Technologies
- ISMG 6450 - IT Project Management

Web and Mobile Computing Specialization

This specialization focuses on building and managing large systems using platforms for website development, mobile and wireless applications, and web services and service oriented architectures. The courses provide expertise in .Net programming, business process management, internet and mobile technologies, website development technologies, data warehousing and administration, and service oriented architecture. Project management coursework enables graduates to successfully handle highly, complex systems development projects in the business world.

Required Courses: (6 hours)

- ISMG 6060 - Analysis, Modeling and Design
- ISMG 6080 - Database Management Systems

WEB Electives: (18 hours)

Select 6 of the following courses:

- ISMG 6020 - .Net Programming Fundamentals
- ISMG 6040 - Business Process Management
- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6240 - Website Development Practice and Technologies
- ISMG 6280 - Service Oriented Architecture
- ISMG 6450 - IT Project Management
- ISMG 6480 - Data Warehouse and Administration

C. Electives

Students fulfill an additional 6 semester hours by completing the following:

Note: Students pursuing the Accounting and Information Systems Audit and Control, Enterprise Risk Management, or Technology Innovation and Entrepreneurship specializations, do not complete the electives below. Students in all of the other specializations will complete the following electives.

- an elective course from any of the ISMG graduate courses OR an internship **AND**
- a free elective selected from any graduate course offered by the Business School, except BUSN courses numbered below 6800.

Candidates for the MS degree are not required to take a comprehensive examination or to complete a thesis in the major field.

Total: 30 hours for MS in Information Systems

Geographic Information Systems (GIS) Option

The Geographic Information Systems option expands upon system development skills through the understanding of geographic information systems workflows, analysis processes, and data models. This option for the Web and Mobile Computing specialization and Business Intelligence specialization addresses how map representations can be abstracted in geo-databases to develop intelligent GIS systems. Learn how GIS can improve efficiencies, decision making, planning, geographic accountability, science-based plans and communication. The GIS option is offered in conjunction with the College of Engineering and Applied Science and a certificate in GIS is awarded by the College of Engineering and Applied Science.

Students must complete all requirements for the MS in Information Systems, as well as the requirements below.

- CVEN 5381 - Introduction to Geographic Information Systems

Select 3 of the following courses: (9 hours)

- CVEN 5382 - GIS Spatial Database Development
- CVEN 5383 - GIS Analysis -- Theory and Practice
- CVEN 5384 - GIS Management and Policies
- CVEN 5385 - GIS Relational Database Systems
- CVEN 5386 - GIS Laboratory

Total: 12 Hours

- GIS courses are offered online and can be completed concurrently with the Information Systems courses.
- Students will be able to register for the classes on the web. There are no special registration requirements.
- Students need to notify the graduate advising office at the Business School, 303-315-8200, prior to graduation if they are planning to complete the GIS option. Students also need to indicate the completion of the coursework when they submit their application for diploma card.

Integrated Sciences MIS

- Graduate School Rules apply to this program

Degree Requirements

Minimum Hours

Students must complete a minimum of 30 semester-hours, of which 3-4 must be project hours (MINS 5960) or 4-6 must be thesis hours (MINS 5950). In accordance with Graduate School rules, a minimum of 24 semester-hours must be at the graduate level (5000+). Up to six (6) semester-hours may be taken at the 4000 level, provided the courses are outside of the disciplines of biology, chemistry, computer science, environmental sciences, geology, mathematics or physics.

Breadth Requirement

Students are required to take classes in a minimum of two (2) areas and a maximum of three (3) areas within the disciplines of biology, chemistry, computer science, environmental sciences, geology, mathematics or physics. With approval, students may take a maximum of six (6) semester-hours at the 4000+ level in one other school or college (any such classes at the 4000 level would count toward the six semester-hour limit above). Classes in computer science (CSCI) are outside the College of Liberal Arts and Sciences, but are considered as part of the program; students may take a maximum of twelve (12) semester-hours in computer science at the graduate level (5000+). All classes counted toward the degree must be related to the student's stated program goal and receive prior approval for inclusion in the program of study by the program director. The student is responsible for insuring that all prerequisite requirements for the classes they take have been met, even if the prerequisite courses do not count toward the degree.

Depth Requirement

The student must designate a primary area within the disciplines of biology, chemistry, computer science, environmental sciences, geology, mathematics or physics. An interdisciplinary concentration (including but not limited to fields such as biochemistry, biophysics, or computational biology) may also be considered. The student must complete a minimum of nine semester hours in the chosen area of concentration.

Project or Thesis Requirement

All students must conduct independent research that results in either a project or a thesis, which is presented to their examination committee in written form and is subject to an oral defense.

Graduate Advisor and Examination Committee

All candidates for the MIS degree must select a faculty advisor and two other faculty members to serve with the advisor as the candidate's graduate examination committee. The committee members must have graduate standing at the University of Colorado Denver and be approved by the program director. The name of the faculty advisor must be submitted to the MIS program director no later than two semesters following full admission to the program.

DEGREE TOTAL: 30 HOURS

International Business MS

Advisor: Manuel G. Serapio, Jr.

Telephone: 303-315-8436

E-mail: Manuel.Serapio@ucdenver.edu

Faculty

Professors:

Wayne Cascio, PhD, University of Rochester

Lawrence Cunningham, DBA, University of Tennessee

John Ruhnka, JD/LLM, Yale School of Law/Cambridge University

Associate Professors:

L. Ann Martin, PhD, University of Minnesota

Kang RaeCho, PhD, University of Washington

Manuel Serapio, PhD, University of Illinois

Senior Instructors:

John Byrd, PhD, University of Oregon

John Turner, PhD, St. Louis University

Instructors:

Chen Ji, MS, University of Colorado

Mary Lee Stansifer, PhD, Northwestern University

Merrily Kautt, PhD-ABD, University of Colorado Denver

The Master of Science in International Business prepares individuals for careers in international business or with international organizations.

The MS program in International Business requires the completion of the following:

Prerequisites (3 hours)

Complete 1 of the following courses: BUSN 6520, BUSN 6550, BUSN 6560, or BUSN 6640.

(Note: BUSN 6550 is an enforced prerequisite for BUSN 6640) Prerequisite choices should be based on course choices in the International Specialization and the International Core courses below. *(Advisors will evaluate transcripts for possible prerequisite waivers)*

Students who choose to take classes in the international specializations below that require prerequisites not previously met, may be required to take additional courses. Completion of prerequisite courses is in addition to the 30 hour MS in International Business. Meeting prerequisites is the responsibility of the student.

A. International Business Core (6 hours)

- INTB 6000 - Introduction to International Business
- INTB 6200 - International Business Policy

B. International Functional Core (6 hours)

Complete 1 course from the International Marketing/Management Specialization list below **and** complete 1 course from the International Finance/Accounting Specialization list below.

C. International Specialization (9 hours)

Students must complete one of the specializations below: (two specializations may not be completed)

International Marketing/Management Specialization

Depending on course selection below, one or both of the following prerequisites may be required.

- BUSN 6520 - Managing Individuals and Teams
 - BUSN 6560 - Marketing Management
- Select 3 of the following courses:
- ENTP 6826 - International Entrepreneurship
 - INTB 6020 - Cross-Cultural Management
 - INTB 6022 - International Business Negotiations
 - INTB 6024 - International Trade Finance and Management
 - INTB 6026 - International Marketing
 - INTB 6040 - Managing Global Talent
 - INTB 6060 - The Legal Aspects of International Business
 - INTB 6082 - Marketing in Emerging Markets
 - INTB 6094 - Marketing Issues in the Chinese Environment
 - INTB 6800 - Special Topics in International Business

International Finance/Accounting Specialization

Depending on course selection below, one or more of the following prerequisites may be required.

- ACCT 6140 - Tax Planning for Managers
 - BUSN 6530 - Data Analysis for Managers
 - BUSN 6550 - Analyzing and Interpreting Accounting Information
 - BUSN 6620 - Applied Economics for Managers
 - BUSN 6640 - Financial Management
- Select 3 of the following courses:
- ACCT 6430 - International Taxation
 - INTB 6024 - International Trade Finance and Management
 - INTB 6370 - International Accounting
 - INTB 6372 - International Financial Management
 - INTB 6411 - International Corporate Governance
 - INTB 6460 - Emerging Market Finance

D. International Elective (6 hours)

Complete any course numbered 6000 or higher with an INTB prefix **OR** any graduate level business course that is cross-listed with an INTB prefix including travel study courses. May also select from the following: ACCT 6430 International Taxation, ENTP 6826 International Entrepreneurship, or ISMG 6420 Global Enterprise Systems.

E. Free Elective (3 hours)

Complete any graduate business BUSN course numbered 6800 or higher **OR** any graduate business course numbered 6000 or higher with a prefix of ACCT, DSCI, ENTP, FNCE, INTB, ISMG, MGMT, MKTG. Note: student who require additional BUSN courses as prerequisites may petition to count one BUSN prerequisite course as a free elective. Please contact grad.advising@ucdenver.edu for the petition form.

Total 30 hours (plus any needed prerequisites)

Landscape Architecture MLA

Prerequisites

Students are expected to have achieved a basic level of computer literacy and are required to have their own computer.

Program Requirements

The landscape architecture program offers professional and advanced professional graduate degree curricula leading to the degree master of landscape architecture (MLA).

- The first-professional degree program, requiring a six-semester sequence of course work totaling 90 semester hours, is fully accredited by the Landscape Architecture Accreditation Board (LAAB) and recognized by the Council of Educators in Landscape Architecture (CELA).
- Students completing a bachelor of environmental design degree at another institution may be given advanced standing in the three-year program. Advanced standing will be based on prior academic accomplishment.
- The fully accredited advanced professional degree program is for qualified students who have already earned a first professional degree in landscape architecture (BLA) or related discipline. It requires a minimum of 48 semester hours. Advanced standing will be based on prior academic accomplishment.

Course Sequence (90-semester-hour)

Course Sequence

(90-semester-hour MLA for students without a professional degree in landscape architecture or related profession)

The curriculum consists of core and elective course work. Core courses are grouped into five components:

	Semester hours
Design Studios	36
History and Theory	12
Site Works	12
Media	6
Critical Practice	6
<i>Total core courses</i>	72
Electives	18
<i>Total courses</i>	90

Typical 90-semester-hour program of study in required courses for the first professional MLA degree

First Year

Fall

- LDAR 5501 - Landscape Architecture Design Studio 1
- LDAR 5521 - History of Landscape Architecture
- LDAR 5572 - Landscape Ecology
- LDAR 6686 - Special Topics: Landscape Architecture

Total: 15 Hours

Spring

- LDAR 5502 - Landscape Architecture Design Studio 2
- LDAR 5532 - Landform Manipulation
- LDAR 6632 - Site Planning - Environment and Society
- LDAR 6641 - Computer Applications in Landscape Architecture

Total: 15 Hours

Second Year

Fall

- LDAR 5503 - Landscape Architecture Design Studio 3
- LDAR 6631 - Landscape Construction Materials and Methods
- LDAR 6670 - Plants in Design
- LDAR 6949 - Research Tools & Methods

Total: 15 Hours

Spring

- LDAR 6604 - Landscape Architecture Design Studio 4
 - LDAR 6605 - Landscape Architecture Design Studio 5
 - LDAR 6620 - Landscape Architecture Theory and Criticism
- Two electives. **Semester hours: 6**

Total: 15 Hours

Third Year

Fall

- LDAR 6606 - Landscape Architecture Design Studio 6
Three Electives. **Semester hours:** 9

Total: 15 Hours

Spring

- LDAR 6607 - Landscape Architecture Design Studio 7
- LDAR 6608 - Landscape Architecture Design Studio 8
- LDAR 6750 - Professional Practice
Two Electives. **Semester hours:** 6

Total: 15 Hours

Course Sequence (48-semester-hour)

(48-semester-hour MLA for students with a professional degree in landscape architecture or related disciplines)

This route typically requires 48 semester hours and two years of full-time study. The core curriculum consists of two groups:

	<i>Semester Hours</i>
Design	24
History and Theory	12
<i>Total core courses</i>	36

Electives	12
<i>Total courses</i>	48

The department chair will advise each student engaged in this program of study.

Thesis

The graduate thesis in landscape architecture provides an opportunity for students to conduct independent research and design investigations that demonstrate their capacity for rigorous original thinking. The thesis is not required for graduation and not all students are approved to write a thesis. Choosing to pursue a thesis project constitutes a significant commitment to the endeavor; the topic must be chosen with care and thoughtfully and critically developed. Topics can explore material that has been previously unstudied, reinterpret existing material in a new light, or engage research and design practices in ways that strengthen and define the final

project. For all theses, the research and products must meet the highest standards of academic excellence and contribute significantly to the discipline and/or profession.

Pursuing a thesis requires students to enroll in a three-course sequence for a maximum total of 12 semester hours. Students are required to formulate their research proposals two full semesters prior to their enrollment for the 6-semester-hour thesis, typically taken in lieu of the final studio. To proceed through the sequence, students must have completed and passed the research tools and methods class (LDAR 6940) and have secured departmental approval of the thesis proposal. The completion of the thesis is dependent on acceptance of the student's work by the faculty member acting as the thesis chair and by the committee. For work to be accepted it must meet the standards established by the University of Colorado Denver for graduate thesis projects.

Dual Degree Options

Students may enroll in a dual degree program with architecture (MArch) or urban and regional planning (MURP), or with business (MBA).

They also may be selected through an application process to participate in a dual degree MLA with Tongji University in Shanghai, China. Read more about this program on the department website.

Linguistically Diverse Education, MA Curriculum and Instruction

Linguistically Diverse Education

Requirements for LDE Program

(Degree/Endorsement or Certificates - TESOL, CRUE, TCLD)

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

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E-mail: education@ucdenver.edu

Web site: www.ucdenver.edu/education/lde

Faculty

Information about faculty in this program is available at www.ucdenver.edu/education/lde. The faculty of linguistically diverse education (LDE) believe that effective teaching requires an awareness of and the ability to respond to individual differences. LDE faculty also emphasize the importance of teachers as scholars and reflective practitioners. In particular, teachers must understand how linguistic and cultural diversity affect their teaching. Two themes run throughout all program offerings. The first concerns the importance of recognizing a variety of literacies—"home" literacies, school literacy, "mainstream" literacy, first and second language literacies—and to develop teaching practices that utilize an understanding of the complexity of literacy development across language contexts. The second theme involves the meaningful use of language and literacy to improve the quality of one's life. As an approach to teaching, this theme emphasizes the creation of diverse, rich environments in which learners experience oral and written language as part of authentic tasks, and where concern for the cultural and linguistic heritage of the students is evident.

Program Options

The LDE program offers options leading to the following:

- a Master of Arts in Curriculum and Instruction
- the Colorado Endorsement for Culturally and Linguistically Diverse Education
- a Teaching English to Speakers of Other Languages (TESOL) certificate
- a Culturally Responsive Urban Education (CRUE) certificate
- a Teaching for Cultural and Linguistic Diversity (TCLD) certificate

The program is intended for:

- novice teachers who have completed their Colorado teaching credentials in CU Denver's graduate teacher education licensure program and are enrolled in the MA in curriculum and instruction with an emphasis in LDE (see 27 semester-hour option)
- veteran elementary and secondary teachers returning to graduate studies for the master's degree (36 semester hours)
- veteran elementary and secondary teachers returning to acquire Colorado endorsement credentials (24 semester hours)

- individuals interested in teaching English abroad (TESOL: 15 semester hours)
- elementary and secondary teachers who desire preparation in better meeting the needs of culturally diverse learners (CRUE: 9 semester hours)
- veteran elementary and secondary teachers returning to graduate studies for a certificate to aid them in helping their English language learners succeed (TCLD: 9 semester hours)
- individuals interested in teaching adults (MA: 36 semester hours)

The MA is a field-based professional development program involving university faculty and practicing LDE instructors in public school and intensive English settings. Courses, laboratories and practica emphasize scholarly approaches to complex problems of practice and feature interactive, collaborative and practical approaches to working with English language learners.

We advocate a sociocultural approach to issues of language and learning, acknowledging the legitimacy of linguistic and cultural differences and recognizing that academic settings represent important socializing forces in students' lives. Because of this, we emphasize the "whole learner" in our teaching and in teacher education and teacher development, understanding that individuals do not merely add a language to their repertoire of communication but make fundamental identity adjustments as they progress in their studies. For this reason, all our course work, laboratories and practica experiences are field-based, putting our program participants in contact with veteran teachers and English language learners. We draw heavily on recent scholarship in collaborative approaches to school-university partnerships and systemic school change in developing classroom methods and materials, curricula and teacher development experiences.

The MA program also provides a foundation in teaching English in a variety of contexts in the United States and abroad. Teachers who work in LDE programs or in other content areas (such as art, language arts, math, music, science, social studies or technology), but who wish to integrate LDE principles and strategies into their instruction for their English language learners, will find the MA program relevant to their interests and goals.

Course work includes language teaching methodology, language acquisition, linguistic analysis of English, multicultural foundations, assessment, literacy and other areas. This program has been developed as an advanced course of study for practicing teachers or individuals with some teaching experience.

Applicants who are new to teaching, and who wish to teach in U.S. K–12 public school settings, should inquire about the teacher education licensure program. Applicants who are new to teaching, but who do not need a teaching license (certification) because they do not wish to teach in U.S. public schools, may consider the TESOL certificate to gain initial teaching experiences before applying for the MA.

Program Requirements and Courses

To complete the LDE program and earn a master's degree and/or endorsement, or to earn a TESOL certificate, students must complete the appropriate course work as outlined in the table below.

Requirements for LDE Program (Degree/Endorsement or TESOL Certificate)					
Course	MA without CDE Endorsement in LDE	MA and CDE Endorsement in CLDE	CDE Endorsement in CLDE Only	MA and CDE Endorsement in CLDE (when added to CU Denver's graduate teacher education licensure program)	TESOL Certificate
CLDE 5010 - Foundations of Language, Literacy and Culture	Required	Required	Required	Required	
<i>One course from culture options:</i> CLDE 5140 - Multicultural Education CLDE 5150 - Culture of the Classroom CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdn	Select One	Select One	Select One	Select One	
CLDE 5070 - Linguistic Analysis of English: Implications for Teaching	Required	Required	Required	Required	Required
CLDE 5030 - Language & Literacy	Required	Required	Required	Required	Required

Acquisition Div Lrn					
CLDE 5820 - Techniques in Teaching English as a Second Language	Required	Required	Required	Required	Required
CLDE 5050 - Assessment & Advocacy for Diverse Learners	Required	Required	Required	Required	Required
<i>One course from field-based teaching options:</i> LCRT 5020 - Workshop in Literacy and Language Teaching CLDE 5825 - Methods and Materials of Language Teaching CLDE 5826 - Language Teaching Lab LCRT 5730 - Language and Literacy Across the Curriculum LCRT 5770 - Effective Literacy Instruction for Second Language Learners	5826 preferred	Elem: 5825 preferred Sec: 5826 preferred	Elem: 5825 preferred Sec: 5826 preferred	Elem: 5825 preferred Sec: 5826 preferred	5826
CLDE 5035 - Language and Literacy: Acquisition,	Required	Required			

Processes, and Cognition, Part II					
CLDE 6912 - Seminar and Practicum in Literacy and Language, ESL and Bilingual Education	Required	Required	Required	Required	
<i>One course from research and evaluation methodology:</i> RSEM 5050 - Classroom Assessment RSEM 5080 - Research In Schools	Select One	Select One		Select One	
<i>One course from educational psychology:</i> EPSY 5110 - Human Learning EPSY 5220 - Adult Learning and Education	Select One	Select One			
Graduate-level University of Colorado elective	Select One	Select One			
Cumulative online portfolio	Required	Required	Required	Required	
LDE PLACE Exam (not required for students beginning Spring 2013 or later)		Only required if beginning prior to spring 2013	Only required if beginning prior to spring 2013	Only required if beginning prior to spring 2013	

Total Semester Hours	36	36	24	27	15

Culturally Responsive Urban Education (CRUE) Certificate Requirements

Those considering the CRUE certificate must complete the following:

CLDE 5170 - Race, Class and Culture in Public Schools Semester Hours: 3

CLDE 5180 - Working with Communities and Families Semester Hours: 3

CLDE 5190 - Culturally Responsive Pedagogy and Practices Semester Hours: 3

Total: 9 Hours

This certificate is only offered as a cohort, through our district partnerships. Additional information about the CRUE certificate can be found at www.cruecenter.org/certificate.php.

Teaching for Cultural and Linguistic Diversity (TCLD) Certificate

The TCLD Certificate (formerly known as Content Instruction for English Learners (CIEL) is a graduate certificate providing a foundation in teaching content to students whose first language is other than English. The program is designed for content-area teachers (math, science, social studies, etc.) who have English language learners in their classes. This certificate is also valuable to content area coaches or administrators who provide support for teachers with English language learners. The certificate is appropriate for public school and community college personnel.

The certificate totals nine credit hours with the specialty area in linguistically diverse education (LDE). All courses are three graduate credit hours and may be applied directly toward a full master's degree in Curriculum and Instruction with an emphasis in LDE while also fulfilling the requirements toward a Colorado Culturally and Linguistically Diverse Education Endorsement. Courses may also be applied toward the Teaching English to Speakers of Other Languages (TESOL) Certificate. Additional courses and applications are required for these programs.

The certificate may be completed in one year. Those pursuing the TCLD certificate must complete the following:

CLDE 5030 - Language & Literacy Acquisition Div Lrn

CLDE 5820 - Techniques in Teaching English as a Second Language

LCRT 5770 - Effective Literacy Instruction for Second Language Learners

The TCLD certificate is being offered only through our district partnerships.

Cumulative Portfolio of Performance Based Assessments (PBAS)

The portfolio is required for the CLDE endorsement, counts as the comprehensive exam for the master's degree and permits you to document your development over the course of your program. Portfolios are reviewed by LDE faculty members. The portfolio process is reviewed in every class as each of the PBAs is completed in the classes, helping students to update their portfolios throughout the program. For more portfolio guidelines, visit the website at <http://www.ucdenver.edu/education>, click on "Current Students" and select Linguistically Diverse Education from the "Program specific resources" drop-down menu.

PLACE Exam for Linguistically Diverse Education Endorsement

To add the endorsement to their teaching license, students beginning the program prior to Spring 2013 must pass the PLACE (Program for Licensing Assessments for Colorado Educators) exam for linguistically diverse education, secure and submit the appropriate paperwork from the Colorado Department of Education, and pay fees required for the PLACE and for the endorsement paperwork. Information about PLACE is online at www.place.nesinc.com. Students beginning Spring 2013 or later will be eligible for the Culturally and Linguistically Diverse Education Endorsement and will not be required to pass the PLACE exam to receive the CLDE endorsement.

Course Scheduling

During the fall and spring semesters, most university courses are offered in the late afternoon and evening and meet for three hours once a week over a 16-week semester. Some alternative course schedules are available, such as meeting on five Friday-evening/all-day Saturday combinations. In the summer semester, three-to eight-week sessions are offered, and courses may be in the morning, afternoon or evening.

Planning

For practicing full-time teachers, we recommend taking one course each fall and spring semester and up to two courses each summer. Students may simultaneously complete requirements for the MA and the endorsement for culturally and linguistically diverse education (some courses are offered only once per year.)

Active Status

Students must complete their programs within seven years, maintaining a GPA of 3.0. Students typically take four courses each calendar year. Failure to enroll over three contiguous semesters will result in a requirement to submit readmission materials.

Management and Organization MS

Program Director: Kenneth L. Bettenhausen

Telephone: 303-315-8425

E-mail: Kenneth.Bettenhausen@ucdenver.edu

Faculty

Professors:

Heidi Boerstler, PhD/JD, Yale University/University of Denver

Wayne Cascio, PhD, University of Rochester

C. Marlena Fiol, PhD, University of Illinois-Urbana-Champaign

Edward O'Connor, PhD, University of Akron

John Ruhnka, JD/LLM, Yale School of Law/Cambridge University

Associate Professors:

Kenneth Bettenhausen, PhD, University of Illinois-Urbana-Champaign

Blair Gifford, PhD, University of Chicago

Sarah Koovor-Misra, PhD, University of Southern California

Assistant Professors:

David Chandler, PhD, University of Texas-Austin

Vinit Desai, PhD, University of California at Berkeley

Stephanie Johnson, PhD, Rice University

Traci Sitzmann, PhD, University of Tulsa

Instructors:

Linda Fried, JD/LLM, University of Miami

Barry McConnell, MBA, University of Colorado

Jeffrey Nystrom, MS, University of Colorado

David Ruderman, MBA, University of Colorado

Ira Selkowitz, JD, University of Denver

Francisco Conejo, PhD, University of Otago New Zealand

The MS Management program prepares students for significant managerial responsibilities in the private and public sectors. Core course requirements provide students with an advanced understanding of how to manage interpersonal dynamics, effectively design organizations, implement planned change and organizational transformations and develop human resources. Students build on this foundation with any four electives in MGMT, ENTP or INTB, or with the courses that comprise one of 12 career-focused specializations.

The specializations include: business strategy, change and innovation, communications management, enterprise technology management, entrepreneurship and innovation, human resources management, global management, leadership, strategic management, managing for sustainability, quantitative decision methods and sports and entertainment management. These specializations will help students master the tools and knowledge to be successful in each focused competency.

The MS management and organization degree requirements are met by the following:

Management MS Core

Required Management Courses (12 hours)

- BUSN 6520 - Managing Individuals and Teams
- MGMT 6320 - Leading Organizational Change
- MGMT 6360 - Designing Effective Organizations
- MGMT 6380 - Managing People for Competitive Advantage

Management Specialization or Elective Courses (12-18 hours)

A student may select any four MGMT, INTB or ENTP elective courses or by completing one of the Management specializations, all of which include four courses. There are also two courses of free electives that must also be completed.

Select from one of the following specializations:

- Business Strategy
- Change and Innovation
- Enterprise Technology Management
- Entrepreneurship and Innovation
- Global Management
- Leadership
- Managing Human Resources
- Managing for Sustainability
- Quantitative Decision Methods
- Sports and Entertainment Management
- Strategic Management

Business Strategy

Complete 4 of the following courses:

- ENTP 6021 - Corporate Entrepreneurship
 - ENTP 6826 - International Entrepreneurship
 - **OR**
 - INTB 6200 - International Business Policy
 - INTB 6022 - International Business Negotiations
 - **OR** INTB 6800 International Business Consulting
 - MGMT 6730 - Human Resources Management: Performance Management
 - MGMT 6803 - Visionary Leadership
 - MKTG 6010 - Marketing Strategy, Evaluation and Development
- Your selection may include up to 2 of the following FNCE courses:
- FNCE 6310 - Financial Decisions and Policies

- FNCE 6340 - Business Firm Valuation
- FNCE 6410 - Real Options and Decisions Under Uncertainty
- FNCE 6411 - International Corporate Governance
- FNCE 6420 - Mergers and Acquisitions
- FNCE 6480 - Financial Modeling
- FNCE 6909 - Corporate Risk Management

Change and Innovation

Complete 4 of the following courses:

- MGMT 6730 - Human Resources Management: Performance Management
- MGMT 6803 - Visionary Leadership
- MGMT 6804 - Bargaining and Negotiation
- MGMT 6808 - Leadership Development
- Your selection may include up to 2 of the following courses:
- MGMT 6821 - Managing for Sustainability
- MGMT 6823 - The Sustainable Business Opportunity
- BUSN 6830 - Business and the Natural Environment

Enterprise Technology Management

Required Course

- ISMG 6180 - Information Systems Management and Strategy

Complete 3 of the following courses:

- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6420 - Global Enterprise Systems
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6450 - IT Project Management
- ISMG 6460 - Emerging Technologies

Entrepreneurship and Innovation

Complete 1 of the following courses:

- ENTP 6642 - Exploring Social Entrepreneurship
- ENTP 6807 - Small Business Marketing and Personal Branding
- ENTP 6824 - Entrepreneurial Financial Management
- ENTP 6826 - International Entrepreneurship
- Complete 1 of the following courses:
- ENTP 6620 - New Venture Operations and Project Management
- ENTP 6644 - Social Entrepreneurship in the Developing World
- ENTP 6822 - Legal and Ethical Issues of Entrepreneurship
- ENTP 6838 - Real Estate for the Entrepreneur

- ENTP 6848 - Leadership in New Ventures
 - ENTP 6862 - Strategic Web Development
- Complete 1 of the following courses:
- ENTP 6020 - The Business Plan
 - ENTP 6021 - Corporate Entrepreneurship
- Complete 1 of the following courses:
- ENTP 6000 level course of your choice (excluding ENTP 6801 and 6802)
 - MGMT 6000 level course of your choice

Global Management

Required Courses

- INTB 6000 - Introduction to International Business
 - INTB 6020 - Cross-Cultural Management
 - MGMT 6040 - Managing Global Talent
- OR**
- INTB 6040 - Managing Global Talent
- For the last course selection you may choose any INTB course numbered 6000 or higher
OR any Travel Study Program for three credits

Leadership

Complete 4 of the following courses:

- MGMT 6803 - Visionary Leadership
 - MGMT 6804 - Bargaining and Negotiation
 - MGMT 6808 - Leadership Development
- Your selection may include 2 of the following courses:
- MGMT 6821 - Managing for Sustainability
 - MGMT 6822 - Business Ethics and Corporate Social Responsibility
 - MGMT 6823 - The Sustainable Business Opportunity
 - MGMT 6824 - Sustainable Business/CSR Field Study
 - DSCI 6820 - Project Management
 - ENTP 6848 - Leadership in New Ventures
 - INTB 6000 - Introduction to International Business

Managing Human Resources

Prerequisites

- BUSN 6530 - Data Analysis for Managers
 - MGMT 6380 - Managing People for Competitive Advantage
- HR emphasis prerequisite courses are in addition to the 30-hour MS core.

Complete 4 of the following courses:

- BUSN 6540 - Legal and Ethical Environment of Business
- MGMT 6040 - Managing Global Talent
- OR**
- INTB 6040 - Managing Global Talent
- MGMT 6710 - Human Resources Management: Staffing
- MGMT 6720 - Human Resources Management: Training
- MGMT 6730 - Human Resources Management: Performance Management
- MGMT 6740 - Human Resources Management: Compensation
- MGMT 6750 - HRM: Investing in People: HR Analytics
- MGMT 6808 - Leadership Development

Managing for Sustainability

Complete 4 of the following courses:

- MGMT 6821 - Managing for Sustainability
 - MGMT 6822 - Business Ethics and Corporate Social Responsibility
 - MGMT 6823 - The Sustainable Business Opportunity
 - MGMT 6824 - Sustainable Business/CSR Field Study
 - MGMT 6840 - Independent Study
 - MGMT 5939 - Internship
 - BUSN 6826 - Supply Chain Management
 - BUSN 6830 - Business and the Natural Environment
 - BUSN 6850 - Accounting and Finance for Sustainability
 - ENTP 6642 - Exploring Social Entrepreneurship
 - ENTP 6644 - Social Entrepreneurship in the Developing World
 - MKTG 6830 - Marketing & Global Sustainability
 - MKTG 5939 - Internship
 - INTB 6870 - Global Climate Change
- Students must petition to complete either an internship (MGMT/MKTG 5939) or an independent study course (MGMT 6840).
- Students may take 1 sustainability course outside the Business School from another CU Denver school/college/department by petition.

Quantitative Decision Methods

Prerequisite

(completion of prerequisite is in addition to the 30-hour MS in management and organization)

- BUSN 6530 - Data Analysis for Managers

Complete 4 of the following courses:

- BUSN 6630 - Management of Operations
 - FNCE 6480 - Financial Modeling
 - MKTG 6050 - Marketing Research
- You may also select any DSCI course 6000 or higher.

Sports and Entertainment Management

Complete 4 of the following courses:

- BUSN 6860 - Finance in the Sports Entertainment Industries
- MGMT 6830 - Sports and Entertainment Management
- MGMT 6832 - Law and Negotiation in the Sports/ Entertainment Industries
- MGMT 6834 - London Calling: Global Sports and Entertainment Management
- MGMT 5939 - Internship
Students must petition if they are interested in the MGMT 5939 Internship course.
- MKTG 6820 - Sports & Entertainment Marketing

Strategic Management

Students pursuing a dual MBA/MS in organization and management are not eligible for this specialization.

Prerequisites

- BUSN 6530 - Data Analysis for Managers
- BUSN 6550 - Analyzing and Interpreting Accounting Information

Required Courses

- BUSN 6560 - Marketing Management
 - BUSN 6640 - Financial Management
 - BUSN 6710 - Strategic Management
 - MGMT 6803 - Visionary Leadership
- OR**
- MGMT 6808 - Leadership Development

Free Electives (6 hours)

Free electives can be anything in the Business School (graduate level), except BUSN prefix courses below 6800. Any 6000-level or higher ACCT, FNCE, ENTP, MKTG, MGMT, ISMG, INTB or HLTH course can count as your free elective requirement.

Marketing MS

Program Director: David Forlani

Telephone: 303-315-8420

E-mail: David.Forlani@ucdenver.edu

Faculty

Professors:

Lawrence Cunningham, DBA, University of Tennessee

Susan Keaveney, PhD, University of Colorado

Clifford Young, PhD, University of Utah

Associate Professors:

David Forlani, PhD, University of Minnesota

Vick Lane, PhD, University of Washington

Madhavan Parthasarathy, PhD, University of Nebraska

Senior Instructor:

Mary Lee Stansifer, PhD, Northwestern University

Instructors:

Peter Miller, MA, Farleigh Dickenson University

The MS in Marketing degree is designed to provide the skill sets necessary for you to succeed in middle (e.g., brand manager, advertising account executive) and upper level (e.g., CMO) positions in marketing and for those who interface with an organization's markets (e.g., customer service or operations).

Your MS in Marketing degree from the University of Colorado Denver consists of 30 hours:

- 21 semester hours of marketing core courses
- 9 semester hours of graduate electives

We highly recommend that one of the electives include a marketing-related internship, especially for those making a career change or without prior experience in marketing. Further, as has been our policy, if you feel that you would benefit by substituting a one or two graduate electives for a marketing elective, the marketing program director will help to work out a plan designed to meet your specific career needs. You must complete the following 21 hours of marketing core courses and then you can choose from two paths to complete the remaining 9 hours. You can select the “build your own MS marketing degree” option or one of the seven specializations.

Graduate Core in Marketing

Required Courses

- BUSN 6560 - Marketing Management

- MKTG 6010 - Marketing Strategy, Evaluation and Development
- MKTG 6020 - International Marketing
- MKTG 6040 - Services Marketing
- MKTG 6050 - Marketing Research
- MKTG 6060 - Buyer Behavior
- MKTG 6200 - Marketing Dashboard Metrics

Marketing Electives

Build Your Own MS Marketing Degree with 9 semester hours of MKTG electives

Choose any three MKTG electives, such as:

- MKTG 5939 - Internship
- MKTG 6030 - Sales and Sales Force Management
- MKTG 6070 - Integrated Marketing Communications and Brand Identity
- MKTG 6080 - Marketing in Emerging Markets
- MKTG 6090 - Customer Relationship Management
- MKTG 6091 - Strategic Product Marketing
- MKTG 6092 - Internet Marketing
- MKTG 6094 - Marketing Issues in the Chinese Environment
- MKTG 6700 - Marketing Travel Study

Total: 30 Hours

...or complete one of the following marketing specializations (listed alphabetically).

Marketing Specializations

The specializations are areas of focus that will appeal to those who have specific interests or are looking to apply their marketing acumen in particular contexts (e.g., interface with engineering or work in a multinational or nonprofit environment). A 3-semester-hour internship can be substituted for an elective in any area of specialization with the approval of the marketing program director.

Brand Management and Marketing Communications

Are you interested in a career in advertising, promotions or public relations? How about furthering your career in marketing management? Advertising, promotion and public relations managers are creative, highly-motivated individuals who are flexible yet can meet a deadline. They need good verbal and written communication skills and the ability to work well with people. Similar talents are needed by those involved with brand management. This task is central to all marketers, especially those involved with perceptual positioning and the deliverance of positions in a target market (e.g., those working in any phase of market communication and R&D) The U.S. Bureau of Labor Statistics reports that, because of the high visibility of these positions, these managers are often prime candidates for top C-level positions. The job outlook remains promising but competition will be keen, and the best

opportunities will go to those with an MS in marketing or an MS marketing /MBA dual degree. (Don't take our word for it, see <http://www.bls.gov/oco/ocos020.htm>).

Required:

- MKTG 6070 - Integrated Marketing Communications and Brand Identity

Complete two of the following courses:

- MKTG 6030 - Sales and Sales Force Management
- MKTG 6091 - Strategic Product Marketing
- MKTG 6092 - Internet Marketing
- MKTG 6820 - Sports & Entertainment Marketing
- MKTG 6830 - Marketing & Global Sustainability
- MKTG 6090 - Customer Relationship Management
- ENTP 6862 - Strategic Web Development

Global Marketing

One of the growing themes of the 21st century economy is the growth of world trade. There is continuing demand for individuals who understand the how to conduct marketing across many different international environments as well as rapidly growing areas such as China and the emerging markets. This specialization prepares you to effectively compete and succeed in this environment.

Required Courses

- MKTG 6094 - Marketing Issues in the Chinese Environment
- MKTG 6830 - Marketing & Global Sustainability

Complete one of the following courses:

- ENTP 6826 - International Entrepreneurship
- INTB 6020 - Cross-Cultural Management
- INTB 6022 - International Business Negotiations
- INTB 6080 - Global Competition
- INTB 6200 - International Business Policy
- MKTG 6080 - Marketing in Emerging Markets
- MKTG 6700 - Marketing Travel Study

High-Tech/Entrepreneurial Marketing

The American economy was built on a spirit of innovation, hard work and entrepreneurship, and this is surely going to be the path that assures continued American dominance in the technology and business development fields. Most smart innovators know that, in addition to the financial and managerial aspects of a business, it is the marketing function that often makes the difference between success and failure. Whether your interest is in corporate intrapreneurship and the development of high-technology oriented innovations or individual entrepreneurship and the development of a small business with minimal funds, knowing how to create and implement appropriate marketing strategies is fundamental to achieving your goals. This specialization allows you to focus on the type of new business creation path that best

suits your aspirations while greatly enhancing your endeavor's probability of success. If you aspire to be the next Bill Gates, this is a "must take" degree path for you.

Required Courses:

- MKTG 6091 - Strategic Product Marketing
- ENTP 6842 - New Concept Development

Complete one of the following courses:

- MKTG 6030 - Sales and Sales Force Management
- MKTG 6070 - Integrated Marketing Communications and Brand Identity
- MKTG 6092 - Internet Marketing
- ENTP 6020 - The Business Plan
- ENTP 6021 - Corporate Entrepreneurship
- ENTP 6801 - Building Biotechnology
- ENTP 6826 - International Entrepreneurship

Internet Marketing

Are you interested in a degree that blends Web development and application strategies with marketing? This, then, is the specialization for you. This specialization covers all aspects of Internet marketing including the functions associated with Web sites for marketing communication and customer support, one-to-one communication to many different receiving devices, marketing via social networks, consumer behavior insights based on offline and online data combination, inventory optimization through CRM-SCM integration, and a focus on ROI and associated performance metrics. With Internet marketing poised to take off globally, especially in developing countries where consumers may not have access to the latest products in local stores, this is indeed the wave of the future.

Required:

- MKTG 6092 - Internet Marketing

Complete two of the following courses:

- MKTG 6070 - Integrated Marketing Communications and Brand Identity
- MKTG 6090 - Customer Relationship Management
- DSCI 6828 - Data Mining: Predictive Modeling
- ISMG 6080 - Database Management Systems
- ISMG 6240 - Website Development Practice and Technologies
- ISMG 6430 - Information Systems Security and Privacy
- ENTP 6862 - Strategic Web Development

Marketing for Sustainability

The world has changed. More than ever, companies around the globe need to introduce smart, sustainable brands to lead the way into the future. The strong core of MS marketing courses will give you the skills to become an effective marketing manager, while the specialized set of sustainability courses will give you the knowledge to work toward a better tomorrow. The

sustainability courses will focus on the triad of economic, environmental and social sustainable development.

Required:

- MKTG 6830 - Marketing & Global Sustainability

Complete two of the following courses:

- BUSN 6830 - Business and the Natural Environment
- BUSN 6850 - Accounting and Finance for Sustainability
- MGMT 6821 - Managing for Sustainability
- MGMT 6822 - Business Ethics and Corporate Social Responsibility

Marketing Research

Marketing and survey researchers gather information about what people think, measure customer satisfaction and repurchase intentions, help companies decide what goods and services to offer and at what price, and detect up-and-coming trends. Marketing researchers need good quantitative skills, strong analytical skills and a good understanding of marketing and buyer behavior. Many of our alumni got their starts in marketing research positions. According to the U.S. Bureau of Labor Statistics, employment is expected to grow faster than average with the best job opportunities for those with an MS marketing degree (Don't just take our word for it; check out <http://www.bls.gov/oco/ocos013.htm>).

Required:

- BUSN 6530 - Data Analysis for Managers

Complete two of the following courses:

- DSCI 6480 - Simulation Modeling
- DSCI 6828 - Data Mining: Predictive Modeling
- ISMG 6080 - Database Management Systems
- ISMG 6480 - Data Warehouse and Administration
- MKTG 6070 - Integrated Marketing Communications and Brand Identity
- MKTG 6090 - Customer Relationship Management

Sports and Entertainment Marketing

The sports business industry is one of the largest and fastest growing in the United States. Add to that the burgeoning music, film, theater, television, cable and other entertainment industries and you've got virtually limitless choices. Every one of those industries needs good marketers. The strong core of marketing courses in the MS marketing program will give you the skills you need to hit the ground running with the specialized courses to teach you how to tailor your skills to the unique needs of the sports and entertainment industries.

Required:

- MKTG 6820 - Sports & Entertainment Marketing

Complete two of the following courses:

- MGMT 6832 - Law and Negotiation in the Sports/ Entertainment Industries
- MGMT 6830 - Sports and Entertainment Management

- MGMT 6834 - London Calling: Global Sports and Entertainment Management
- MKTG 6070 - Integrated Marketing Communications and Brand Identity

Master in Business Administration for Executives, MBA

Program Director: W. Scott Guthrie

Telephone: 303-623-1888 or 1-800-228-5778

The executive MBA program provides executive-level students with a broad, rigorous 21-month academic experience leading to the master of business administration degree. The program is designed for persons who hold managerial positions in the private and public sectors. It builds upon the knowledge and experience of these executives with a sophisticated, challenging curriculum that can be pursued simultaneously without career interruption.

The executive MBA program emphasizes strategic leadership; the organization in a complex, international environment; and the applied tools of management. Courses are taught through a variety of methods. Case studies, lectures and computer simulation are combined with research projects and other teaching methods to provide students with tools useful in their present positions and applicable to more advanced responsibilities as they progress in their management careers.

Each new session of the executive MBA program begins the last week of August. Classes meet for a full day, once a week, on alternating Fridays and Saturdays, making it possible for those who live outside the Denver area to participate.

Two courses are taken simultaneously throughout the program. The program is supplemented by an intensive orientation at the beginning and a two-day seminar at the conclusion of the first academic year. A second-year seminar is held at an international business center outside of North America.

Mathematics Education Master of Science in Education MEd

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Faculty

Information about faculty is available online at www.ucdenver.edu/education

The MEd in mathematics education program incorporates courses in both mathematical content and pedagogy and will also provide research experiences. Together, these courses and experiences will improve the student's knowledge of mathematics and enhance their ability to teach effectively at the K-12 level. The program arises from collaboration between the School of Education and Human Development (SEHD) and the Department of Mathematical and Statistical Sciences in the College of Liberal Arts and Sciences (CLAS). It interweaves both mathematics and education leading to a truly interdisciplinary program.

The MEd in mathematics education has concentrations in the following areas:

- Elementary Mathematics Education
- Secondary Mathematics Education

Mechanical Engineering MEng

► Graduate School Rules apply to this program

The master's of engineering (MEng) is an interdisciplinary degree program designed to meet the needs of those practicing engineers who wish to follow an integrated program of studies in engineering and allied subjects related to the individual student's professional work. Students can combine advanced engineering course work with graduate-level non-engineering courses such as business administration, environmental sciences, social sciences, biological sciences or public administration.

Prospective students are required to present a well-defined objective in order to be admitted to the program. In consultation with faculty advisors, an academic program is developed to meet this objective.

An advisory committee will be appointed for each student by the department. The advisory committee that guides the student is responsible for approving the individual's degree program and admission to candidacy, and approves the student's written report and the awarding of the degree.

The requirements for admission are the same as those for the MS degree awarded through the College of Engineering and Applied Science. A minimum of 30 semester hours of academic work are required for the MEng degree. At least 15 of these hours must be at the 5000 level or above in mechanical engineering. A maximum of 12 semester hours may be taken outside of engineering. In addition to course work, a written report is required in the MEng program as a final project (3 semester hours). The report may be related to the student's professional work. The report will be of the same general quality as that required for the master of science thesis and must be defended orally. It may be based on work done for credit under independent study.

Mechanical Engineering MS

► Graduate School Rules apply to this program

Program Plans

For the master of science (MS) degree in mechanical engineering, students may choose between three plans with each plan totaling 30 semester hours.

- Plan I - Students following Plan I (thesis option) take 24 semester hours of formal course work plus 6 semester hours of thesis work.
- Plan II - Students following Plan II (project option) take 27 semester hours of formal course work plus a 3 semester hour final project requiring a report.
- Plan III - Students following Plan III (10-course option) take 30 semester hours of formal course work plus a final comprehensive exam.

Students following Plan I or Plan II must submit a proposal to their examination committee prior to the semester in which they register for their thesis or project semester hours, and the examination committee must approve the proposal for the thesis or project.

Program Options

Students in each of the plans may choose one of three options. In the first two options, the student may choose to specialize in either thermal science or mechanics. The third option is the general mechanical engineering option.

- The **thermal science option** requires 12 semester hours of course work in analytical methods, numerical methods, fluid mechanics and thermodynamics. The student then selects 9 semester hours of course work in approved electives from a selection of thermal science electives.
- The **mechanics option** requires 12 semester hours of course work in analytical methods, numerical methods, elasticity and dynamics. The student then selects 9 semester hours of course work in approved electives from a selection of mechanics electives.
- The **general mechanical engineering option** requires the student to take 18 semester hours of required course work in analytical methods, numerical methods, fluid mechanics, thermodynamics, elasticity and dynamics.

After meeting the course requirements for any of the three options the student may select any Mechanical Engineering graduate course to complete the 30 hour credit requirement. The student may also take courses approved by an advisor outside of the Mechanical Engineering Department.

Media Forensics Emphasis, Recording Arts MS

► Graduate School Rules apply to this program

Program Overview

The master of science in recording arts, media forensics emphasis, prepares students from various backgrounds for work in the field of forensic audio, video, and image analysis, utilizing the state-of-the-art methods and technology necessary to fight crime in the digital age. Housed in the National Center for Media Forensics (NCMF), this program is unique in providing a hybrid format (online and onsite) graduate education in forensic multimedia analysis.

Students from all disciplines (media production, electrical engineering, general forensics, etc.) are encouraged to apply, as this program enhances scientific inquiry while guiding students through a two-year cohort curriculum. The hybrid delivery format affords students the option to work full-time while completing most of the program in an online classroom with additional onsite study at the NCMF and its partner institutions. Classes are comprised of online self-guided lectures, interactive learning, discussion boards and reading responses, as well as scheduled video conferencing. Onsite coursework provides students with hands-on and practical experiences which augment and enrich the curriculum. Additionally, experiential learning includes visits to regional crime labs and scientific conferences to understand the application of forensic media technology and laboratory procedures.

Classes feature diverse faculty and lead students through three areas of study: foundational knowledge, core analyses and capstone experiences which fully prepare students for research in forensic science and expert witness testimony. Digital media evidence acquisition through computer forensics applications is emphasized in an environment that fosters creativity and individual skills. The research thesis on a topic of the student's choosing is conducted under the advisement of the Director and Associate Director of the NCMF as well as forensic professionals from around the world. The thesis is a topic of exploration throughout the program and serves to enhance a graduate's area of specialty as they prepare for work in private forensic practice, corporate research and development, academic research and teaching, or crime labs at the local, state or federal levels.

Note: The application process, requirements and deadlines for the master of science in recording arts, media forensics emphasis (MSRA-MF), differ from those listed for the MSRA recording arts program.

MSRA Media Forensics Application Components

Application Components – Domestic Students

Domestic Student Application Deadline: **February 15th**

Program accepts students in **Fall** only.

Graduate Application for Admission

- Students are required to complete the Graduate Application for Admission. Students should complete an application online.

- Program of Study – On the online application, the Program is **College of Arts & Media**, the *Plan* is Recording Arts, and the *Sub-Plan* is **Media Forensics**. Make sure to include all three of these designations; otherwise application materials will not be received by the MSRA-MF Admissions Committee.
- It is recommended to e-mail: leah.haloin@ucdenver.edu with notification of intent to apply. Application materials will be more closely tracked by the program.

Application Fee

- Domestic applicant non-refundable application fee of \$50.00.
- Fee must be paid in U.S. dollars, via the online Graduate Application for Admission.

Official Graduate Record Examination (GRE) General Test Scores

- Applicants to the MSRA-MF degree program must submit scores from the GRE tests dated within the past five years. The “General Test” offered by Educational Testing Service will assist in evaluating applicants to the degree program. It evaluates the analytical writing, and verbal and quantitative reasoning skills of the candidates. This examination is offered internationally by Educational Testing Service on a continuous schedule. There is no minimum score required for admission, as each student’s score will be evaluated as a portion of the complete application. This examination is not intended to exclude any applicant from the degree program, but rather to assist in academic advising.
- Scores must be received by the application deadline, therefore students should plan accordingly when scheduling their testing dates. Late GRE scores are not accepted, and these applications will not be reviewed.
- The institution code for the University of Colorado Denver where scores should be sent is: **4875**. There is no department code for the program.
- Information on the GRE can be obtained [here](#).

Transcripts

- Applicants must have two (2) official academic transcripts from each college or university attended sent directly from the issuing institution to:
Leah Haloin
MSRA-MF Graduate Admissions Committee
National Center for Media Forensics
Campus Box 154
P.O. Box 173364
Denver, CO 80217-3364
- While credits from one institution may appear on the transcript of a second institution, transcripts must be submitted from each institution, regardless of the length of attendance, and whether or not courses were completed.
- “Official transcripts” exhibit the official seal and signature of the registrar.

- Transcripts that are marked "student copy" or "unofficial" are not accepted as official and cannot be used in the admission decision.

Cover Letter

- *Applicants must submit a cover letter detailing the following:
 - Professional/educational background
 - Reason for wanting to participate in program
 - Research interests
- The cover letter must be typed and double-spaced.
- The cover letter can be scanned and uploaded in your online application or e-mailed: leah.haloin@ucdenver.edu.

Resume

- Students are required to submit a typed resume as it relates to the field of forensic science. The resume must include educational background, work experience and relevant skills. Students are also welcome to include any published works, scholarly/creative work, exhibitions, awards, or other relevant achievements.
- The resume should be chronologic, beginning with educational background, and progressing to employment history. Please refrain from "functional" resumes, or those that simply summarize qualities or competencies.
- The resume can be scanned and uploaded in your online application or e-mailed to leah.haloin@ucdenver.edu.

Three (3) Letters of Recommendation

- Three (3) letters of recommendation from responsible persons that can attest to the applicant's academic and professional accomplishment are required. The names and contact information of persons from whom letters have been requested should be included in the online Graduate Application for Admission.
- Applicants are invited to provide additional letters of recommendation beyond the three required, should the applicant desire.
- Letters of recommendation must be input directly from the recommender via the online process through the Graduate Application for Admission.
- Incomplete letters of recommendation will not be considered, and the application will not be reviewed.

Two (2) Technical Writing Samples

- Applicant is to provide two (2) samples of material authored by applicant displaying scientific/non-fictional writing skills. These could be undergraduate research papers, published or unpublished articles, grant proposals, prepared reports or affidavits from mock-trial proceedings.
- Each writing sample should be 1,000 words or more.

- The technical writing samples can be scanned and uploaded in your online application or e-mailed to: leah.haloin@ucdenver.edu.

Applications which do not include all of the requirements listed above, or that include partial components, are considered incomplete and will not be reviewed.

Application Components – International Students

(Note: International applicants are encouraged to visit the Office of International Admissions website.)

International Student Application Deadline: **February 15th**
Program accepts students in **Fall** only.

International Student Graduate Application for Admission

- International Students are required to complete an online application form. Please visit international.ucdenver.edu/admissions and click on the ‘Apply Now’ tab on the top right hand corner. Program of Study – On the online application, the Program is **College of Arts & Media**, the Plan is **Recording Arts**, and the Sub-Plan is **Media Forensics**. Make sure you have included all three of these designations; otherwise your application will not be received by the MSRA-MF Admissions Committee.
- It is recommended to e-mail: leah.haloin@ucdenver.edu with notification of intent to apply. Application materials will be more closely tracked by the program.

Application Fee

- International applicant non-refundable application fee of \$75.00.
- Fee must be paid in U.S. dollars, via the online Graduate Application for Admission.

Official Graduate Record Examination (GRE) General Test Scores

- Applicants to the MSRA-MF degree program must submit scores from the GRE tests dated within the past five years. The “General Test” offered by Educational Testing Service will assist in evaluating applicants to the degree program. It evaluates the analytical writing, and verbal and quantitative reasoning skills of the candidates. This examination is offered internationally by Educational Testing Service on a continuous schedule. There is no minimum score required for admission, as each student’s score will be evaluated as a portion of the complete application. This examination is not intended to exclude any applicant from the degree program, but rather to assist in academic advising.
- Scores must be received by the application deadline, therefore students should plan accordingly when scheduling their testing dates. Late GRE scores are not accepted, and these applications will not be reviewed.
- The institution code for the University of Colorado Denver where scores should be sent is: 4875. There is no department code for the program.

- Information on the GRE can be obtained [here](#).

English Language Requirement

- International Applicants to the MSRA-MF degree program whose first language is not English are required to provide evidence of English language competency. The language requirement can be satisfied as follows:
 - Submitting TOEFL scores (minimum score of 71 IBT or 525 PBT.)
 - Submitting IELTS scores (minimum 6.0.)
 - Graduation from CU Denver approved English language programs with a recommendation letter from the Center director.
 - Students with a Bachelor's degree from an accredited institution in the United States.
 - Following the Graduate School Policy, the English language requirement is waived for international students who have graduated from a foreign institution where the language of instruction for their Bachelor's degree was English. These students are required to provide a letter from their home institution verifying this information.
 - International students who have earned a Bachelor's degree in the United States or completed one year of study in a Master's program at an accredited institution in the United States may demonstrate English language competency via their transcripts from the U.S. Institution.
- Evidence of English language competency should be scanned and uploaded in your online application.
- Please contact the Office of International Admissions for more information.

Transcripts

- Applicants must have two (2) official academic transcripts from each college or university attended.
- Foreign language transcripts must be translated word by word into English by a certified translator. The translator should not attempt to convert grades into the American system.
- Transcripts should be scanned and uploaded in your online application.

Cover Letter

- Applicants must submit a cover letter detailing the following:
 - Professional/educational background
 - Reason for wanting to participate in program
 - Research interests
- The cover letter must be typed and double-spaced.
- The cover letter should be scanned and uploaded in your online application.

Resume

- Students are required to submit a typed resume as it relates to the field of forensic science. The resume must include educational background, work experience and relevant skills. Students are also welcome to include any published works, scholarly/creative work, exhibitions, awards, or other relevant achievements.
- The resume should be chronologic, beginning with educational background, and progressing to employment history. Please refrain from “functional” resumes, or those that simply summarize qualities or competencies.
- The resume should be scanned and uploaded in your online application.

Three (3) Letters of Recommendation

- Three (3) letters of recommendation from responsible persons that can attest to the applicant’s academic and professional accomplishment are required. The names and contact information of persons from whom letters have been requested should be included in the online Graduate Application for Admission.
- Applicants are invited to provide additional letters of recommendation beyond the three required, should the applicant desire.
- Letters of recommendation must be input directly from the recommender via the online process through the Graduate Application for Admission.
- Incomplete letters of recommendation will not be considered, and the application will not be reviewed.

Two (2) Technical Writing Samples

- Applicant is to provide two (2) samples of material authored by applicant displaying scientific/non-fictional writing skills. These could be undergraduate research papers, published or unpublished articles, grant proposals, prepared reports or affidavits from mock-trial proceedings.
- Each writing sample must be 1,000 words or more, and provided in English.
- The technical writing samples should be scanned and uploaded in your online application.

Applications which do not include all of the requirements listed above, or that include partial components, are considered incomplete and will not be reviewed.

International Students must submit all application components in English, where applicable.

Transcripts, cover letters, recommendation letters, and evidence of English language proficiency should be scanned and uploaded in your online application. If these documents are being mailed to the University, please send to:

University of Colorado Denver
International Admissions
Campus Box A005/141
P.O. Box 173364
Denver, CO 80217-3364
USA

Curriculum

The master of science in recording arts, media forensics emphasis, comprises 33 semester hours of credit: 29 hours are required courses and 4 hours are thesis. All courses must be completed with a grade of B- (2.7) or better and students must maintain at least a 3.0 cumulative GPA. Grades of C+ (2.3) or lower, or a cumulative GPA below 3.0, will result in the student's dismissal from the program. Students are admitted to the program in the fall as a cohort, and must follow the curriculum in sequence. Students who do not complete the program in sequence must reapply.

Curriculum and application requirements for the master of science in recording arts, media forensics emphasis, are subject to change. Refer to the National Center for Media Forensics website for up-to-date information regarding curriculum and application requirements.

Program Sequence

Fall - Year 1

MSRA 5014 - Research Practices in Media Forensics
MSRA 5124 - Forensic Science and Litigation

Spring - Year 1

MSRA 5054 - Experiential Lab
MSRA 5114 - Foundations in Media Forensics
MSRA 5144 - MATLAB Foundations

Summer - Year 1

MSRA 5134 - Computer Forensics
MSRA 5244 - Mobile Phone Forensics

Fall - Year 2

MSRA 5054 - Experiential Lab
MSRA 5214 - Forensic Audio Analysis
MSRA 5254 - MATLAB for Forensic Audio Analysis

Spring - Year 2

MSRA 5054 - Experiential Lab

MSRA 5224 - Forensic Video and Image Analysis

MSRA 5264 - MATLAB for Forensic Video and Image Analysis

Summer - Year 2

MSRA 5314 - Report Writing and Court Testimony

Summer - Year 2 (or later)

MSRA 6954 - Research Thesis in Media Forensics

Total: 33 Hours

New Directions, Political Science MA

► Graduate School Rules apply to this program.

Director: Kathryn Cheever

Telephone: 303-556-5950

E-mail: kathryn.cheever@ucdenver.edu

An alternative track of the political science MA program (Plan II) is offered off-campus through the Center for New Directions in Politics and Public Policy at Chaparral in Douglas County and on the Fort Lewis College campus in Durango. This politics and public policy track presents courses in an intensive weekend format. The emphasis on politics and the policy-making process relates to the ability of leaders to mobilize resources and achieve constituent goals consistent with the public interest. In this context, politics entails communication, and effective politics requires communication. In short, this emphasis on political awareness seeks to help participants utilize the political process as the “art of making what appears to be impossible, possible.”

Degree Requirements

Students must complete a total of 33 graduate credit hours to complete the MA degree.

Core Courses

- PSCI 5014 - Seminar: American Politics
- PSCI 5085 - Comparative Public Policy
- PSCI 5324 - Politics, Public Policy and Leadership
- PSCI 5457 - Seminar: American Political Thought
- PSCI 5468 - Research Methods in Political Science

Total: 15 Hours

Electives

In addition to the required core courses, students must take 15 credit hours of political science electives.

[NOTE: Previously earned graduate credit may be submitted for approval to satisfy up to nine hours of the supportive elective requirement. The elective courses offered may change from time to time based on needs, interests and other factors.]

Below are examples of electives taken by New Directions students:

- PSCI 5007 - Beyond Political Correctness
- PSCI 5009 - Politics of the Budgetary Process
- PSCI 5024 - State Politics: Focus on Colorado
- PSCI 5084 - Local Government and Administration

- PSCI 5274 - Conflict Resolution and Public Consent Building
- PSCI 5354 - Seminar: Environmental Politics and Policy
- PSCI 5374 - Public Priorities for the 21st Century
- PSCI 5414 - Organizational Change Agents
- PSCI 5644 - Ethical Responsibilities of Leaders

Total: 15 Hours

Project Requirement

All students are required to complete a 3-credit master's project under the direction of a faculty advisor. Registration is done using the Special Processing form, rather than online.

- PSCI 5960 - Master's Project

Total: 3 Hours

Major Total: 33 Hours

Common Course Outcomes

In addition to clearly stated subject outcomes, all courses will have a common set of outcomes related to the following areas which are considered critical in developing leadership capacities necessary to address the changing public priorities for the 21st century:

Creativity and innovation
 Changing public priorities
 Political and social diversity
 Ethical accountability
 Deductive and inductive reasoning
 Applied use of appropriate technology
 Strategic planning and decision making
 Resolution of conflicts and public consent building
 Individual, organizational and cultural communication effectiveness

Course Format

All courses are offered in a weekend format that consists of two or three weekend sessions for a given course spread out over a two-month period. Three-weekend classes are held from 9:00 am to 4:00 pm on both Saturday and Sunday of each weekend session. Two-weekend classes meet from 5:00 until 9:00 p.m. on Friday evening and from 8:30 a.m. until 4:30 p.m. on Saturday and Sunday. In most cases, a student will complete all of the two or three weekend sessions of one course before starting the weekend sessions for the next course. There is typically a 2-3 week break between semesters.

Location

All of the courses for the Denver-based programs are currently offered at the University Center at Chaparral, 20 miles south of downtown Denver. The University Center is located next to the Chaparral High School, just north of Lincoln Avenue at Chambers Road in Douglas County (15653 Brookstone Drive).

Courses for the Durango-based program are currently offered on the campus of Fort Lewis College.

Political Science MA

- Graduate School Rules apply to this program

The political science department offers a master of arts (MA) degree in political science with an emphasis on building academic and practical skills in key areas of the discipline. Research and teaching in the department centers on the major fields of American politics, comparative politics, international relations, political theory and public policy; however, the department also offers more specialized training in human rights, legal studies, gender politics, race and ethnic politics, European studies, indigenous politics and urban politics. Students pursuing the MA have the option of completing the traditional track or an alternative track centered on the study on politics, public policy and leadership. Students completing the program have gone on to PhD programs across the country and work in a variety of areas, including; state and local elected office, government service, directors of community-based organizations and nongovernmental organizations, legislative analysts, UN affiliates, lobbyists, teachers, media analysis and political consulting.

Requirements for Admission

Students applying for admission to the MA program in political science should present at least 18 semester hours of previous academic work in political science, at least 9 hours of which should be at the upper-division or graduate level. The department may make exceptions to these requirements in unusual cases (for instance, if course work in related fields such as psychology, economics and history compensates for the deficiencies in political science). Applicants should present an undergraduate GPA of at least 3.0 to be considered; however, the department typically admits students with a GPA of 3.2 or higher. In their applications, students must submit transcripts and letters of recommendation (from academic sources) as specified by the Graduate School. In addition, applicants must submit a statement of academic objectives and an academic writing sample. Standardized test scores are not required of applicants, but will be considered if submitted.

In order to take graduate courses in political science, students must either be admitted to the MA program or secure permission as a nondegree student. Nondegree students may take up to 12 semester hours of graduate course work; however, they must first secure permission from the department graduate advisor to enroll in all graduate course work.

Degree Requirements

In addition to the requirements for admission and details of the program spelled out here, graduate students in political science must also abide by department rules and procedures specified in the Graduate Student Handbook. Failure to meet these policies may result in a student being dropped from the program.

Under the MA program in political science, two degree plans are available:

- Plan I requires the completion of nine graduate courses (27 semester hours) and a 6-credit thesis

- Plan II requires the completion of ten graduate courses (30 semester hours) and a 3-credit project.

Course work in both plans completed under the traditional track offered on the Downtown Campus must include:

P SC 5000. The State of the Discipline

Additionally, at least one graduate seminar is required in each of the following areas: American politics, comparative politics or international relations, political theory and research methods.

Students will complete between 12 and 15 elective semester hours, depending on whether they are working under Plan I or II, which may be fulfilled through graduate course work in political science, related disciplines, independent study or internships. Ultimately, the total combination of independent study, graduate course work in related disciplines and internship cannot exceed 9 semester hours. With either plan, students are required to complete a minimum of 16 semester hours with the political science department at the University of Colorado Denver, and maintain a minimum *B* (3.0) overall GPA or better. Students who are on probation must meet regularly with the graduate advisor and must secure approval from the advisor for all course work while on probation.

Plan II is available both under the traditional MA track offered on the Denver campus, as well as through an alternative track offered off-campus through the Center for New Directions in Politics and Public Policy. For details about this off-campus track in politics and public policy, see New Directions, MA in Political Science .

Psychology MA

- Graduate School Rules apply to this program

Objectives and Requirements

The major objective of the MA program is to prepare graduates for doctoral-level study in both PhD and PsyD programs. Assessment training includes theory, diagnostic interviewing, intelligence testing and some personality testing with both children and adults. We introduce students to the theory and application of major models of psychotherapy and to psychopathology theory and research. We also emphasize the ethical principles that permeate clinical psychology and the application of these principles to problems in mental health practice, teaching and research. Finally, students become well versed in statistical methods. Students take the required courses during their first year in the program. During the second year, they choose to specialize by opting for a research-based thesis and/or an applied internship at a mental health agency. Students also demonstrate competency by defending a thesis or an internship competency project. Students can complete the program in slightly less than two years, and have up to five years to complete the program according to Graduate School Rules.

Admissions

The application deadline is February 1 for the following fall. Applicants are responsible for making sure all materials are in on time. We do not consider late applications. International students should be sure to submit all materials at least two weeks before this deadline (by January 15) so that they arrive at our department on time. Below is condensed information; see the psychology department website for complete information.

Admission Requirements:

- BA or BS from an accredited college or university, with a minimum GPA of 3.5 based on all college course work. However, successful applicants over the past several years have typically held GPAs above 3.5, with an average GPA of 3.7.
- Undergraduate courses in: introductory psychology, psychological statistics and abnormal psychology. Additional courses in psychology are highly desirable; our admissions committee will also look favorably upon courses in the biological and physical sciences.
- Two official transcripts from each college and university attended.
- Graduate Record Exam (GRE) General Test (verbal, quantitative, analytical writing) is required for all applicants. The subject test in psychology is not required, but is strongly recommended for applicants who do not hold an undergraduate degree in psychology. Successful applicants in recent years have typically had GRE verbal plus quantitative scores above 1100. Take the exam at least six weeks before the February 1 deadline so that the scores arrive on time.
- Three letters of recommendation, at least two of which must be academic references, accompanied by the Request for Recommendation form.
- Graduate Application Form, with answers as informative as possible.
- Application fee of \$50 (\$75 for International Students). This fee can be paid online; however, if paying by check, please specify "PSY M.A. CLN" on the memo line in the lower left corner of your check.

Financial Information

The University of Colorado Denver administers various forms of financial aid for graduate students: fellowships, scholarships and a number of awards from outside agencies. See the Office of Financial Aid for further information. Additionally, the psychology department offers teaching assistantships each year in such courses as introductory psychology, statistics, research methods and human development. Teaching Assistantships are not guaranteed.

Contingent upon the availability of grant money, faculty may also offer part-time research assistantships to qualified students. The typical RA position involves data collection and analysis, library research, etc. Some computer and statistical skills are usually required. RA positions may arise on very short notice.

Please note: Neither teaching nor research assistantships confer in-state tuition status or include tuition waivers.

Degree Requirements

A total of 30 (for thesis students) or 33 (for internship students) semester hours are required for graduation: 24 for required courses and either six thesis hours or eight internship hours. Internship students must also register for one credit for the Internship Competency Project. Students must maintain a 3.0 grade point average.

Demonstration of competence

Upon completion of the 24 hours of course work (eight courses), students must demonstrate competence in several core areas (e.g., statistics and methods, ethics, assessment, psychotherapy, psychopathology) by completing a thesis or an internship competency project (ICP).

Internship or Thesis

Students have the option of completing a master's thesis and/or pursuing an internship. The thesis involves a research project that makes a significant contribution to the field. Topics pursued by students in our master's program have included body image in eating disorders, HIV infection and childhood abuse, humor as a moderator between social conflict and psychological distress, and ethical issues regarding informed consent for psychotherapy.

Students who are particularly interested in going on to PhD programs should strongly consider the thesis option, since most PhD programs prefer individuals who have prior research experience. Applicants who are interested in the thesis option and whose research interests/experience overlap with those of a faculty member should contact that faculty member directly.

Alternatively, students may begin work on an 800-hour internship following successful completion of their courses. Students select internships (subject to program approval) based on personal interests. The greater Denver area offers a rich variety of internship possibilities, and our students have worked at a variety of agencies, including community mental health centers,

inpatient and residential treatment facilities, social services, hospitals, probation and diversion programs and university counseling centers.

At minimum, students must complete either an 800-hour internship or a thesis. Students also have the option to complete both or to do a thesis and a 400-hour internship.

Public Administration MPA

The master of public administration (MPA) is designed to provide graduate professional education for students who wish to prepare themselves for careers in public management or policy, in nonprofit organizations or in private corporations that interface with the other sectors. The program also offers to those already in public service an opportunity to pursue additional education as a means of furthering their careers.

Program Director: Christine Martell, PhD

Faculty

Professors:

Kathleen Beatty, PhD, Washington State University
Lloyd Burton, PhD, University of California, Berkeley
Angela Gover, PhD, University of Maryland
Mary Guy, PhD, University of South Carolina
Richard Stillman, PhD, Syracuse University
Paul Stretesky, PhD, Florida State University
Paul Teske, PhD, Princeton University

Associate Professors:

Brian Gerber, PhD, Stony Brook University
Tanya Heikkila, PhD University of Arizona
Jody Fitzpatrick, PhD, University of Texas, Austin
Christine Martell, PhD, Indiana University
Callie Rennison, PhD, University of Houston
Jessica Sowa, PhD, Syracuse University
Allan Wallis, PhD, City University Graduate Center
Brian Gerber, PhD, Stony Brook University
Chris Weible, PhD, University of California, Davis

Assistant Professors:

Todd Ely, PhD, New York University
Danielle Varda, PhD, University of Colorado Denver
Benoy Jacob, PhD, University of Illinois at Chicago

MPA, Western Slope Director:

Fred Rainguet, PhD, University of Colorado

Wirth Chair in Sustainable Development:

Alice Madden, JD, University of Colorado

Research Professor:

Stephen Block, PhD, University of Colorado

Assistant Research Professor:

Kelly Hupfeld, JD, Northwestern University

Clinical Professors:

Malcolm Goggin, PhD, Stanford University

Denise Scheberle, PhD, Colorado State University

Professor Emeritus:

John Buechner, PhD, University of Michigan

MPA AND MCJ—General Information**Admission Requirements**

1. Applicants must have a baccalaureate degree from a college or university of accredited standing, with a minimum GPA of 3.0. Two sets of official transcripts are required from all higher education institutions attended.
2. Applicants must provide three recommendations from qualified references. Recommendations may be from professors, employers and/or others acquainted with the prospective student's professional and/or academic work.
3. Applicants are required to take the GRE, the GMAT or the LSAT unless they meet the requirements for waiver. Standard graduate admission test scores are normally waived when the candidate already has a graduate degree in another field from an accredited institution. Other applicants may have test scores waived if they have an undergraduate GPA of 3.0 or better *and* they have *significant* post-baccalaureate professional employment in management or policymaking positions for a minimum of 10 years or the equivalent.
4. A current resume highlighting professional accomplishments and community involvement, a short essay stating educational and career goals, a declaration of program form, and an application fee are also required.
5. International applicants may have different admission requirements and should check with the Office of International Affairs. In particular, international students whose first language is not English are required to take the TOEFL or IELTS. A composite score of 6.5 on the IELTS, or a composite score of 80 on the TOEFL, with accompanying minimum IELTS or TOEFL subscore results, is required.

All application material and test scores should be sent to SPA, University of Colorado Denver, Campus Box 142, P.O. Box 173364, Denver, CO 80217-3364.

SPA will review applications as soon as they are complete. Master-level applicants generally receive notification of their admission status three weeks after all materials have been received in the office. The preferred deadlines listed below allow students to receive best consideration

for scholarships, financial aid and course selection. *Students who do not meet the preferred deadline may still submit application materials until approximately one month before the start of classes and will be considered on a space-available basis.*

<i>Semester</i>	<i>Preferred Application Deadline</i>	<i>Final Deadline*</i>
Fall	March 15	August 1
Spring	October 15	December 1
Summer	March 15	May 1

*Final deadline does not apply to international students who should contact the Office of International Affairs for deadline information.

Provisional Admission

In exceptional cases, a student who does not otherwise meet the minimum requirements for admission may be admitted on provisional status if elements of their application suggest they may be able to succeed in the program. Students admitted on a provisional basis take two core courses in their first semester, and must earn at least a B in each course. MPA students may select two of the following: PUAD 5001, 5003 or 5004. MCJ students may select two of the following: CRJU 5001, 5002 or 5005. Based on their performance in these courses, a formal decision will be made concerning their admission into the program. Provisionally-admitted students may not take any other courses at SPA until they have been formally admitted to the program.

Nondegree Admissions

Students may register as nondegree students while developing their application packet. However, students are discouraged from taking multiple courses as a nondegree student if they hope to pursue a degree. No more than nine semester hours taken in the program as a nondegree student may be applied to the master's degree programs, with approval of an advisor. Nondegree student application forms are available in the Office of Admissions or online.

Transfer of Credit to SPA

Up to 9 semester hours of appropriate graduate work from an accredited college or university may transfer, if such credit was not applied to a completed degree.

Limitation of Course Load

The normal course load for a full-time student is 9 semester hours. A student who is employed full time may not carry more than 9 hours unless an excess load has been approved in advance by the faculty advisor.

Financial Assistance

Students in the master's degree programs are eligible for several types of financial assistance. Educational loans require application to the CU Denver Office of Financial Aid and completion of the FAFSA. A number of students secure internships or other part-time positions with local, state and federal agencies in the Denver metropolitan area. Scholarship assistance is available on a limited basis.

The school receives announcements for fellowships from various government organizations and actively seeks additional funding for student support in the form of internship positions and research assistantships.

Persons interested in applying for financial assistance should inquire in the SPA office. The deadline for current students is March 15 for the fall term. Prospective students seeking scholarship funds should have complete scholarship applications on file at the SPA office by the preferred application deadline for the semester they are requesting funds.

The Internship Program

An internship for the MPA and MCJ programs is required for students who have not had significant public, nonprofit or private-sector experience. The purpose of the internship is to continue the linkage between theory and practice that is the philosophical basis of SPA. The internships generally involve part-time work. A maximum of three semester hours will be awarded for internship service. Great care is taken by the SPA to ensure that the internship experience meets the intellectual needs of the student. Placements have included the Governor's Office, Colorado General Assembly, Denver Mayor's Office, City of Denver, Denver Police Department, Boulder Crime Lab, Western Governor's Association, the National Conference of State Legislatures, the Colorado Department of Public Health and Environment and the Denver Center for the Performing Arts.

Time Limit for Master's Degree

Master's degree students must complete all course work and degree requirements within six years of registration in their first course.

MPA Degree Requirements

The minimum requirements for the basic MPA degree are outlined below. Occasionally, changes are made; students may graduate under the requirements that were in effect when they were admitted.

1. Graduate Course Work

All students must complete a minimum of 36 semester hours of graduate course work, with a cumulative GPA of B (3.0) or better. No more than 6 semester hours of independent study can be applied toward the degree. Students who have not had at least one year of professional work experience in the public or nonprofit sectors must complete an internship through an additional 3-semester-hour course described in No. 6 below, bringing their total semester-hour requirements to 39.

2. Core Courses

All MPA students (with the exception of those in the executive MPA option) must complete the following core courses or approved equivalents, for a total of 18 credit hours. Students must receive a grade of at least B- (2.7) in each core class. Students who earn a lower grade in a core class may repeat the class once in an effort to improve the grade.

- PUAD 5001 - Introduction to Public Administration and Public Service
- PUAD 5002 - Organizational Management and Behavior
- PUAD 5003 - Research and Analytic Methods
- PUAD 5004 - Economics and Public Finance
- PUAD 5005 - The Policy Process and Democracy
- PUAD 5006 - Leadership and Professional Ethics

3. Electives

All MPA students must complete 15 hours of electives. Elective courses in which a student earns a grade of less than a C (2.0) will not be counted toward a degree.

4. Capstone Class

All MPA students, except those pursuing the thesis option, must complete the capstone course during the last semester of their degree program. All core courses must be completed before beginning the capstone.

- PUAD 5361 - Capstone Seminar

5. Thesis Option

The thesis option is available in lieu of PUAD 5361 for MPA students who have an interest in pursuing a topic in-depth or who are planning to pursue a career in research or academia. Students must receive approval from their faculty advisor or the MPA director to pursue the thesis option. The thesis is a six credit course that normally spans two semesters.

6. Internships

Students who have limited experience (generally defined as less than one year of experience) in public, nonprofit or relevant private-sector service must enroll in PUAD 6910, Field Study in Public Administration. The decision to require PUAD 6910 for a particular student is made by the faculty admissions committee or the student's faculty advisor upon the student's acceptance to the MPA program. A minimum of 300 hours of supervised work and study is required to earn 3 semester hours of credit. This requirement raises the total semester hours needed to earn the MPA degree to 39.

MPA Options

Concentrations and Graduate Certificates

All SPA concentrations are a total of 15 semester hours and may either be taken as part of the MPA program or as a stand-alone graduate certificate.

A student *may* choose to select one of the concentrations described below or may complete the MPA without a specified concentration. Students completing a concentration take their electives

in the area of their concentration, complete the advanced seminar project in the area of their concentration and are advised by faculty from the concentration. The concentrations and their particular required courses are:

Environmental Policy, Management and Law Concentration

Students take the two courses listed below, plus three electives approved by the concentration director:

- PUAD 5631 - Seminar in Environmental Politics and Policy
 - PUAD 5632 - Seminar in Environmental Management
 - PUAD 5633 - Seminar in Natural Resource and Environmental Health Law
- Electives approved by advisor (3) (6-9 semester hours)

Total: 15 Hours

Local Government Concentration

Students take at least two of the four courses listed below, plus electives approved by the concentration advisor:

- PUAD 5625 - Local Government Management
 - PUAD 5626 - Local Government Politics and Policy
 - PUAD 5628 - Urban Social Problems
- Electives approved by advisor (3) (6-9 semester hours)

Total: 15 Hours

Domestic Violence Concentration

Students take four specified courses and one elective.

- PUAD 5910 - Women and Violence: A Sociological Perspective
- PUAD 5920 - Psychology of Violence Against Women
- PUAD 5930 - Battered Women and the Legal System
- PUAD 5940 - Domestic Violence Social Change and Advocacy

Total: 15 Hours

Emergency Management and Homeland Security Concentration

Students take two out of three required courses as well as electives approved by advisor.

- GEOG 5230 - Hazard Mitigation and Vulnerability Assessment
- PUAD 5650 - Disaster and Emergency Management Policies
- PUAD 5450 - Law of All-Hazards Management

Total: 15 Hours

The emergency management and homeland security concentration requires the completion of three electives chosen from a preapproved, multidisciplinary list of courses relevant to emergency management. Students may choose electives in one of three tracks: policy and management; spatial analysis, planning and quantitative assessment; or public safety, homeland security and justice.

Nonprofit Organizations Concentration

Students take two required courses as well as nonprofit electives approved by advisor.

- PUAD 5110 - Seminar in Nonprofit Management
- PUAD 5140 - Nonprofit Financial Management
- Other nonprofit courses (9 semester hours)

Total: 15 Hours**The Accelerated Cohort**

The accelerated MPA is a fast-paced, full-time option that brings academically superior students together with a dedicated research and teaching faculty in the midst of the vibrant downtown Denver environment.

The accelerated option enables students to focus their energies in a concentrated program of study and earn a nationally accredited, 36-hour MPA in 12 months. (It is preferred that applicants have some knowledge of economics, statistics and political science.)

The cost for the accelerated option is the same for both in-state and out-of-state students, providing out-of-state students with substantial savings.

The students in the cohort enjoy a unique experience as they go through all classes in the MPA together, fostering a community of scholar-practitioners.

Students are admitted to the program in cohorts of approximately 20 participants. A new cohort starts each fall. The cohort format helps to increase the opportunity to become acquainted with other graduate students and increases the opportunities for interaction between program participants and faculty.

The Executive Option

The School of Public Affairs currently offers an executive MPA option for senior level professionals in the nonprofit and public sectors. The Executive MPA option requires 30 semester hours of credit.

Initial Leadership Experience (3 credit hours): All students will enroll in the Rocky Mountain Program, a SPA residential leadership program. This is a six-day seminar typically held in

Breckenridge that brings together public and non-profit professionals from across the country to collaborate on current management issues while honing leadership skills. Federal employees may elect OPM's federal Management Assessment Seminar at either the Western or Eastern Management Development Centers in lieu of the Rocky Mountain Program. For more information about the OPM program option please see www.leadership.opm.gov.

Required Courses (15 credit hours): All students are required to complete two courses (6 credits) held on the Denver campus in an intensive format (1-2 weeks). Students complete two additional core courses (6 credits) in either an online, weekend intensive, or through the traditional campus based classroom setting. All students complete their program with a capstone project (3 credits). The capstone project allows students to synthesize the information learned during the program and put it into practice within a professional setting.

Elective Courses (12 credit hours): In consultation with an advisor, students select elective courses that best meet their professional goals. These may be taken online or in the classroom. Students may complete up to 9 credits through the federal OPM Management Development Center provided they are approved for graduate credit by the American Council on Education.

Potential students may contact the program director, Dr. Kathleen Beatty, at 303.315.2485, for more information.

Online Option

SPA provides a unique opportunity for students who live at a distance from the university to obtain a MPA degree.

Designed to serve students who are looking for a high-quality education, but who need an alternative to traditional classroom instruction, students may elect to do one or all of their courses online. This option allows students to complete the entire degree at a distance or to choose to come to campus for some courses while using an interactive online format for others. For both in-state and out-of-state online students, tuition is comparable to the rate charged to in-state students for courses that meet in the classroom. The nonprofit organization concentration is available online, as well as a variety of other electives leading to a general MPA degree. Students in the executive option may also choose to do all SPA course work online.

Domestic Violence Cohort

The first graduate program of its kind in the nation, the University of Colorado Denver's MPA concentration in domestic violence focuses on the management and policies surrounding domestic violence, as well as grass-roots social justice work and best practices in this emerging field. Each fall, 10 to 20 students are accepted into the cohort program, allowing the participants to build a strong community of advocates and learners.

The program invites students from around the world to participate in a unique cohort program, which combines online courses with five intensive campus seminars spaced throughout the two-year program. Students may choose to take all courses in the classroom if they wish.

The cost of the domestic violence concentration courses is the same for in-state and out-of-state students. Nonresident students pursuing the MPA with a concentration in domestic violence may also qualify for reduced tuition through the Western Regional Graduate Program which covers 14 western states.

Western Slope Cohort

Public and nonprofit sector professionals living in Colorado's Western Slope have the opportunity to earn a MPA without traveling to the Front Range. SPA offers one MPA course each semester in Grand Junction at Mesa State College and supplements these offerings with online courses. Courses are designed to integrate the academic and applied experiences necessary to be an effective modern manager. The courses are offered in an intensive weekend format and emphasize the needs of small and rural communities.

Public History, MA in History

► Graduate School Rules apply to this program.

The MA program in history offers graduate-level major and minor fields in public history. Public history is a field of study that applies historical methods to the public sphere. This graduate major does not require a concentration, but students can choose to concentrate in museum studies or historic preservation. Public history majors can minor in any subspecialty the department currently offers. Students majoring in U.S., European or global history can also minor in public history.

Admission Requirements—See History MA

Degree Requirements

Required Introductory Course

- HIST 6013 - Introduction to the Professional Study of History

Total: 3 Hours

Major Courses

- HIST 5234 - Introduction to Public History

Concentration Requirement (optional)

Students who choose to concentrate in museum studies or historic preservation must take either

- HIST 5231 - History in Museums
- -OR- HIST 5232 - Historic Preservation

Research Seminar (3 hours)

Research seminars focus on students' development of an original, primary research paper.

Major Electives (9-12 hours)

Electives are made up of courses in public history, which focus on methodology and practice and thesis or project credits. These courses include:

- HIST 5133 - Management of Material Culture and Museum Collections
- HIST 5228 - Western Art and Architecture
- HIST 5229 - Colorado Historic Places
- HIST 5240 - National Parks History
- HIST 5242 - Oral History
- HIST 5243 - Public History Administration
- HIST 5244 - Interpretation of History in Museums: Exhibits and Education
- HIST 5245 - Heritage Tourism
- HIST 6992 - Seminar: Colorado Studies

Additionally, special topics courses may be offered in such areas as historic reenactments, monuments and memory and recreating historic house interiors. Students who didn't take HIST 5231 or HIST 5232 as their concentration requirement may use these courses toward their elective requirements.

Total: 18 Hours

Minor Electives

Electives are made up of courses in the minor field, including readings courses, which address specific field historiographies, or research seminars.

Total: 12 Hours

Open Elective

Students may use the open elective to explore a course outside their major or minor or to do extra course work in one of their fields.

Total: 3 Hours

Total: 36 Hours

INDEPENDENT STUDIES AND/OR INTERNSHIPS

Candidates may register for up to 6 hours of internships or independent study, only one of which may be at the 6000-level. Students will not be allowed to satisfy the research seminar requirement via independent study. *Any independent study or internship at the 6000-level needs the permission of the graduate advisor.* Students interested in pursuing an independent study or internship must find a faculty member willing to oversee their work, and they should expect the workload to equal or exceed that required for other courses at the same level.

- HIST 5840 - Independent Study: History
- HIST 6840 - Independent Study: HIST
- HIST 6939 - Internship

COMPREHENSIVE EXAMINATIONS

All history MA candidates must pass a comprehensive examination in the major and minor fields after the completion of course work and before embarking on a thesis, curriculum project or public history project. The comprehensive exam evaluates students' knowledge of their course work and their reading lists for their major, minor and concentration. In answering their exam questions, students are expected to construct arguments and to show mastery of the historiographies, narratives and historical content in their fields. The comprehensive exam is administered and evaluated by a committee of the major advisor, the minor advisor and an outside reader from the history faculty.

Master's Degree Extended Research Options

The MA program in history offers a set of courses in which students can develop extended research interests. Students must select an advisor and develop a proposal for a specific research agenda in the semester before beginning work on a project.

REQUIRED PUBLIC HISTORY THESIS (HIST 6950) OR PROJECT (HIST 6952)

Students majoring in public history must complete either a thesis (6 semester hours) or a project (3 semester hours).

OPTIONAL ADVANCED HISTORY CURRICULUM DEVELOPMENT (HIST 6951)

Students who undertake their master's program when they are already teachers can choose to construct curriculum projects relevant to their teaching practice. See the separate section below on "Opportunities for Teachers and Teachers-in-Training."

- HIST 6950 - Master's Thesis
- HIST 6951 - Masters Project: Advanced History Curriculum Development
- HIST 6952 - Master's Project: Public History

Thesis Requirements

Students writing theses are expected to develop an original research agenda resulting in an extended paper. Students work with their major field advisor, who will help guide them through the process of research and writing. Students enroll for six credit hours in HIST 6950 to complete their theses. Before registering for HIST 6950, students must have a thesis proposal and initial bibliography approved by their advisor.

A thesis is evaluated by a committee of three, including the major advisor and two other faculty members chosen by the student in consultation with the major advisor. Upon completion of the thesis, the student meets with the committee members, who ask questions about the research and conclusions which the student must defend. In many instances, the committee will require further revisions, sometimes major in scope, before the thesis is accepted and cleared for submission to the Graduate School in fulfillment of degree requirements.

Project Requirements

In lieu of a thesis, public history majors may choose to enroll in one semester of HIST 6952 to complete a public history project. Projects, which are usually conducted in collaboration with a public history organization, can entail creating an exhibit, organizing a museum or archival collection, conducting a preservation survey or similar activities. Students are required to prepare a paper describing the process and results of their project.

- HIST 6952 - Master's Project: Public History

Opportunities for Teachers and Teachers-in-Training

Curriculum Projects

Licensed teachers and teachers-in-training enrolled in the history graduate program may choose to complete a curriculum development project. Students arrange curriculum development projects with a sponsoring faculty member. Generally, students are expected to develop and submit a complete course curriculum plan for each 3-semester-hour project. Projects need to show evidence of familiarity with the relevant historiographies and primary sources. Students may apply the credits from HIST 6951 to either the major field or the minor field, depending on the project subjects. Curriculum plans must meet minimum criteria established by the history department in the document Advanced History Curriculum Development Projects.

- HIST 6951 - Masters Project: Advanced History Curriculum Development (3 or 6 semester hours in their major field, or 3 semester hours in their major and 3 semester hours in their minor)

Secondary Teacher Licensure

Students interested in secondary teacher licensure should consult with the School of Education and Human Development. See the Urban Community Teacher Education Program for information.

History MA

Reading and Writing Option, MA Curriculum and Instruction

Literacy, Language and Culturally Responsive Teaching

MA Requirements for the Reading and Writing Option and Secondary English Education Option, plus Reading Teacher Endorsement and Certificate Programs

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Websites: www.ucdenver.edu/education/literacy and www.ucdenver.edu/education/englished

Reading and Writing

Secondary English

Early and Adolescent Literacy Certificates

Faculty

Information about faculty in this program is available online at www.ucdenver.edu/education/literacy.

The faculty of literacy, language and culturally responsive teaching (LLCRT) believe that effective teaching requires an awareness of and the ability to respond to individual differences. LLCRT faculty also emphasize the importance of teachers as scholars and reflective practitioners. In particular, teachers must understand how linguistic and cultural diversity affect their teaching. Two themes run throughout all program offerings. The first concerns the importance of recognizing a variety of literacies—"home" literacies, school literacy, "mainstream" literacy, first and second language literacies—and to develop teaching practices that utilize an understanding of the complexity of literacy development across language contexts. The second theme involves the meaningful use of language and literacy to improve the quality of one's life. As an approach to teaching, this theme emphasizes the creation of diverse, rich environments in which learners experience oral and written language as part of authentic tasks, and where concern for the cultural and linguistic heritage of the students is evident.

Reading and Writing Option and Reading Teacher Endorsement

This master's program is designed for K-6 and 7-12 teachers. This program is a credentialed program meeting the Colorado Department of Education requirements for the reading teacher endorsement. Therefore, students who obtain a master's degree emphasizing reading and writing are certified to hold positions in public and private schools as special developmental and reading teachers in K-6 or 7-12. This program is also valuable for elementary and secondary teachers who wish to enhance reading and writing instruction in their classrooms.

By placing emphasis on the reading, writing and oral and visual language development of culturally, linguistically and academically diverse student populations, this master's program is at the forefront of the field. Language is approached from a socio-psycholinguistic perspective that emphasizes the learner's construction of meaning rather than the learning of isolated skills.

Importance is placed on using theory, inquiry and personal reflection to inform classroom practice. The program prepares teachers to become decision makers capable of developing learner-centered curricula where each student's reading and writing abilities are assessed to address developmental or special needs.

Curriculum

Course offerings lead to an MA degree in curriculum and instruction with an emphasis in reading and writing, as well as a reading teacher endorsement, at one of two levels: K–6 or 7–12.

Those who have completed University of Colorado Denver's graduate teacher education licensure program must earn an additional 27 semester hours to obtain the MA and endorsement. Those who completed licensure through other means must earn an additional 36 semester hours to obtain the MA and endorsement.

Teachers may add a reading teacher endorsement to an already-earned master's degree in education by taking those courses listed under the chosen endorsement level. (In the state of Colorado, the reading teacher endorsement cannot simply be added to a bachelor's degree.) Electives and core courses are not required for those seeking the endorsement only. Two additional courses must be taken in other areas specified by the Colorado Department of Education. In many cases, previous master's degree courses will satisfy this requirement.

Requirements for Reading and Writing Program (Degree/Endorsement Options)						
	ELEMENTARY (K-6)			SECONDARY (7-12)		
Course	MA & CDE Endorsement	MA & CDE Endorsement (when added to CU Denver's graduate teacher education licensure program)	CDE Endorsement Only	MA & CDE Endorsement	MA & CDE Endorsement (when added to CU Denver's graduate teacher education licensure program)	CDE Endorsement Only
Required		Required	Required	Required	Required	
LCRT 5810 - Wksp: Lang Acq & Development	Required	Required	Required	Required	Required	Required
LCRT 5010 - Foundations of Language	Required	Required	Required	Required	Required	Required

LCRT 5710 - Primary Literacy: Pre-3rd Grade	Required	Required	Required			
LCRT 5720 - Writing: Process, Development, and Teaching Grades 3-12	Required	Required	Required	Required	Required	Required
LCRT 5730 - Language and Literacy Across the Curriculum	Required		Required	Required		Required
Children's literature course, per advisor approval	Select one	Select one	Select one			
LCRT 5201 - Adolescent Literature				Required	Required (<i>waived if taken as part of English Licensure</i>)	Required
LCRT 6910 - Seminar and Practicum in Literacy and Language, K-6	Required	Required	Required			
LCRT 6911 - Seminar and Practicum in Literacy and Language, 7- 12+				Required	Required	Required
LCRT 5055 - Linking Assessment and Instruction in Language and Literacy	Required	Required	Required	Required	Required	Required
LCRT 6915 - Seminar and	Required	Required		Required	Required	Required

Practicum in Literacy Professional Development						
Core course in Research and Evaluation Methodology - see list below	Select one	5080		Select one	5080	
Interdisciplinary core course - see list below	Select one			Select one		
Graduate-level School of Education and Human Development elective				Select one		
Portfolio	Required	Required		Required	Required	
PLACE Exam	Required	Required	Required	Required	Required	Required
Total Semester Hours	36	27	27	36	27	27

Secondary English Education Option

The master's program in secondary English education is designed to enhance the preparation of middle and high school English/language arts teachers. Students complete course work in language development, assessment and field experiences. With the help of their advisor, they also select specific courses from the English Department or within the School of Education and Human Development that provide a well-rounded repertoire of knowledge and skills to fulfill the needs of an English educator. Special consideration is given to working with diverse ethnic populations.

Program Requirements

To earn a master of arts degree in curriculum and instruction with an emphasis in secondary English education, students must complete the following:

- 30 graduate semester hours in English education
- 6 graduate semester hours of core courses
- performance-based assessments that culminate in a portfolio finalized in the last semester of the program as fulfillment of the MA comprehensive exam requirement

Each student's course plan is developed in conjunction with his/her advisor. Please review www.ucdenver.edu/education/englished for recommended course sequence.

LCRT 5055 - Linking Assessment and Instruction in Language and Literacy Semester Hours: 3

LCRT 5201 - Adolescent Literature Semester Hours: 3

LCRT 5200 - Theory and Methods of English Education Semester Hours: 3

LCRT 5810 - Wksp: Lang Acq & Development Semester Hours: 3

LCRT 5010 - Foundations of Language Semester Hours: 3

LCRT 6911 - Seminar and Practicum in Literacy and Language, 7-12+ Semester Hours: 3

Research and Evaluation Methodology core course (see list below).

Interdisciplinary core course (see list below).

Four electives, per advisor approval, from the English department and/or the School of Education & Human Development. The following are recommended:

LCRT 5720 - Writing: Process, Development, and Teaching Grades 3-12 Semester Hours: 3

-OR-

ENGL 5110 - Denver Writing Project Semester Hours: 3

Courses in working with English language learners and in instructional technology may also be helpful. For a technology course, please contact the professor about prerequisite knowledge.

Total: 36 semester hours

Program Requirements--When Added to CU Denver's Graduate Teacher Education Licensure Program

MA in curriculum and instruction with emphasis in secondary English education, when added to CU Denver's graduate teacher education licensure program:

- 18 graduate semester hours
- performance-based assessments that culminate in a portfolio finalized in the last semester of the program as fulfillment of the MA comprehensive exam requirement

Each student's course plan is developed in conjunction with his/her advisor. Please review www.ucdenver.edu/education/englished for recommended course sequence.

FNDS 5050 - Critical Issues in American Education Semester Hours: 3

-OR-

SPED 5300 - Collaborating in Schools and Communities Semester Hours: 3

RSEM 5080 - Research In Schools Semester Hours: 3

Four electives, per advisor approval, from the English Department and/or the School of Education and Human Development. The following are recommended:

LCRT 5720 - Writing: Process, Development, and Teaching Grades 3-12 Semester Hours: 3

-OR-

ENGL 5110 - Denver Writing Project Semester Hours: 3

Courses in working with English language learners and in instructional technology may also be helpful. For a technology course, please contact the professor about prerequisite knowledge.

Total: 18 semester hours

Core Courses

Research and Evaluation Methodology

RSEM 5000 - Orientation to Research and Measurement in Education Semester Hours: 3

RSEM 5050 - Classroom Assessment Semester Hours: 3

RSEM 5080 - Research In Schools Semester Hours: 3

RSEM 5100 - Basic Statistics Semester Hours: 3

RSEM 5120 - Introduction to Research Methods Semester Hours: 3

RSEM 5110 - Introduction to Measurement Semester Hours: 3

Interdisciplinary

EPSY 5100 - Advanced Child Growth and Development Semester Hours: 3

EPSY 5140 - Advanced Adolescent Growth and Development Semester Hours: 3

EPSY 5220 - Adult Learning and Education Semester Hours: 3

EPSY 6200 - Human Development Over the Life Span Semester Hours: 3

FNDS 5050 - Critical Issues in American Education Semester Hours: 3

FNDS 5420 - History and Philosophy of Education: Twentieth Century America Semester Hours: 3

LCRT 5140 - Multicultural Education Semester Hours: 3

LCRT 5150 - Culture of the Classroom Semester Hours: 3

CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdns Semester Hours: 3

CLDE 5820 - Techniques in Teaching English as a Second Language Semester Hours: 3

Cumulative Portfolio

The MA portfolio counts as the comprehensive exam for the master's degree. The portfolio is an accumulation of the performance based assessments completed during program courses and reflects on the student's development over the course of the degree program. Reading and writing students must include confirmation of Reading Teacher PLACE exam registration in their portfolios. Information about the PLACE is online at www.place.nesinc.com.

Course Scheduling

During the fall and spring semesters, most university courses are offered in the late afternoon and evening and meet for three hours once a week over a 16-week semester. Some alternative course schedules are available, such as meeting on five Friday-evening/all-day Saturday combinations. In the summer semester, three- to eight-week sessions are offered, and courses may be in the morning, afternoon or evening.

Planning

For practicing full-time teachers, we recommend taking one course each fall and spring semester, and up to two courses each summer. Plan carefully because courses are intended to build upon each other, and some courses are only offered once a year.

Active Status

Students must complete their programs within seven years, maintaining a GPA of 3.0. Students typically take four courses each calendar year. Failure to enroll over three contiguous semesters will result in a requirement to submit readmission materials.

Early and Adolescent Literacy Certificates

The early literacy certificate and adolescent literacy certificate each include three graduate-level courses (for a total of 9 semester hours) and are conveniently offered entirely online. They are specifically designed to help licensed teachers develop the skills necessary to reach student readers. To find out more, please visit www.ucdenver.edu/education/cpe or email cpe@ucdenver.edu.

Recording Arts, Master of Science (MSRA)

► Graduate School Rules apply to this program

Program Overview

Recording arts is a field that deals with all aspects of recorded music and sound, including mixing, mastering, production, sequencing, calibration, live sound reinforcement, and post-production. The program refines student skills in sound recording, aesthetics, multi-track recording, digital signal processing, automated mixing, synchronization, stereo imaging and monitoring, mastering and post-production.

In addition, the program recognizes the need for pedagogy degrees. Pedagogy is synonymous with teaching, and this program includes a survey of available resources for audio education. The curriculum offers an interdisciplinary approach, including physics, acoustics, engineering, music, broadcast, medicine, psychology, multimedia, theatre and film/video. The program emphasizes design and development of new methods and materials.

CU Denver's master of science in recording arts (MSRA) has the only pedagogy track in the nation. This graduate degree is designed to:

- prepare students for careers in audio application for the fields of mass communications, education, arts and the entertainment industries
- help professionals advance their careers
- help prepare the music educators of the future

Students may choose between a thesis (research) or non-thesis (portfolio/project) option.

Graduate courses constituting the core of the MSRA advance the artistic, pedagogical, technical and problem-solving abilities of the enrolled students. Elective courses allow each student to develop additional skills and knowledge in related areas, including film, broadcasting, education, music business and the performing arts.

CAM encourages students from allied disciplines (music, physics, engineering, etc.) to apply. Students are not required to have their bachelor's in recording arts—the student's bachelor's degree can be from any discipline. Applicants can qualify for the MSRA by having equivalent level preparation (e.g., work experience). Candidates without sufficient experience/training in recording arts may be required to take preparatory courses at the undergraduate level.

Note: The application process and requirements for the master of science in recording arts (MSRA) differ from those listed for the MSRA media forensics emphasis.

MSRA Application Components

The following is required of all students applying to the MSRA program, with the exception of international students. International students should consult the Office of International Affairs for specific information on application and admission requirements. Contact the Office of International Affairs for specific application forms: www.internationaladmissions.ucdenver.edu.

1. Graduate Admissions Application

Students should plan to apply online: www.ucdenver.edu > Admissions > Master's. Alternatively, students may request an application packet by calling 303-556-3480. Please be sure to provide a mailing address.

Students are required to complete the application for graduate admissions form.

Program of study—on the online application, the plan of study for all master of science in recording arts candidates is Recording Arts (RCDA-MS).

International students must complete additional paperwork in addition to the components below. International student applications must be received six months prior to the term for which the student is applying. Contact the Office of International Affairs for specific application forms.

2. In-State Tuition Classification Application

Students who may qualify for Colorado in-state tuition (i.e., residency) should fill out the in-state tuition form. *The Office of Admissions will make the determination of residency.* For information on residency criteria contact the Office of Admissions at 303-556-2704 or admissions@ucdenver.edu.

3. Entrance Examinations(s)

Official GRE scores (www.gre.com)—All applicants to the MSRA degree program must submit scores from the GRE. The General Test offered by Educational Testing Service will assist the department in evaluating applicants to the degree program. The test evaluates verbal, quantitative and analytical writing skills for the candidates. This examination is offered internationally by Educational Testing Service on a continuous schedule. The minimum required score for entrance in the program is the 50th percentile, although each student's score will be evaluated as part of complete application process. This examination is not intended to exclude any applicant from the degree program, but rather to assist in academic advising.

Scores must be received by the application deadline; therefore, students should plan accordingly when scheduling their testing dates. Late GRE scores are not accepted; these applications will not be reviewed.

Test of English as a Foreign Language (TOEFL) (www.ets.org/toefl)—This examination is required for international students for whom English is not their primary language. These students are required to have a minimum TOEFL score of 500 (173 electronic). As this is a highly technical degree program, which will require a specialized vocabulary and strong written skills, higher TOEFL scores are encouraged.

4. Transcripts

The most recent *official* academic transcripts must be sent from the registrar of all previous higher education institutions. Official transcripts should be mailed to:

MSRA Graduate Admissions Committee
Campus Box 162, P.O. Box 173364
Denver, CO 80217-3364

5. Letters of Recommendation

Three (3) letters of recommendation are required from responsible persons who can attest to the academic and professional accomplishments of applicants. The names of those who are providing letters of recommendation should be included in Part II of the application.

Letters of recommendation must be accompanied by the letter of recommendation form, available on the MSRA website.

Incomplete letters of recommendation will not be considered, and the application will not be reviewed.

6. Application Essay

This essay should summarize the educational and professional history of the applicant relative to a career in the audio/music industry, and should include:

- complete name and contact information
- educational background
- career objective
- anticipated dates of attendance

The essay must be typed, double-spaced and in English; the preferred length is three to five pages.

7. Resume

Students are required to submit a 1-2 page typed resume, including educational background, work experience and relevant skills. Students are welcome to include any published works, exhibitions, performances, awards or other relevant achievements. The resume should be chronological, beginning with educational background and progressing to employment history. Please refrain from functional resumes or those that simply summarize qualities or competencies. This professional vita complements the essay by providing a chronology of all educational and work experiences and of scholarly/creative work.

8. Portfolio

All applicants will submit a portfolio of recordings that represent their best accomplishments in audio production. Presentation, breadth of experience, technical and artistic quality will be evaluated.

The required submission format is an audio Compact Disc (CD) or Video DVD, with an annotated discography (index) to the portfolio material and a clear and accurate labeling of all material. Discography *must* include the applicant's function on each track (e.g. artist/performer, engineer, producer, arranger, etc.). Compressed audio recordings (MP3, AAC, etc.) will not be accepted.

A DVD portfolio may be submitted if the student's primary experience is in visual media (film, TV, etc.). DVD portfolios must also contain an annotated discography.

Helpful tips for a good portfolio are available on the MSRA website. Portfolio submissions that do not follow these guidelines will not be evaluated, and the application will not be processed.

9. Application Fee

\$50 nonrefundable for domestic (within the USA) applicants

\$75 nonrefundable for international applicants

The application fee must be paid with a check, money order or by credit card. Cash will not be accepted. The fee must be paid in U.S. dollars.

Applications that do not include all of the requirements listed above, or that include partial components, are considered incomplete and will not be reviewed.

Required Courses

- MSRA 5000 - Introduction to Graduate Studies
- MSRA 5580 - Graduate Audio Seminar I
- MSRA 5590 - Graduate Audio Production
- MSRA 6510 - Graduate Audio Studies Pedagogy
- MSRA 6950 - Thesis in Professional Audio
- or
- MSRA 6951 - Professional Audio Portfolio Thesis

Total: 16 Hours

Electives

Students may take courses not listed here upon approval of the faculty or academic advisor.

- MSRA 5001 - MSRA Research Seminar (spring)
- MSRA 5500 - Topics in Professional Audio (spring)
- MSRA 5505 - Audio Post Production I (fall)
- MSRA 5530 - Live Sound Reinforcement (fall/spring)
- MSRA 5560 - Mastering & Advanced Digital Audio (spring)
- MSRA 5575 - Graduate Surround Sound (spring)
- MSRA 5605 - Audio Post Production II (spring)
- MSRA 5820 - Digital Music Techniques (fall)
- MSRA 5840 - Independent Study for MSRA (spring, fall, summer)

Total: 18 Hours

Program Total: 34 Hours

Students should plan to graduate in a minimum of 4 semesters. Students can apply for graduation in any semester (fall, spring or summer), provided they have completed the

required course work. All course work must be completed with a satisfactory grade of “B” (3.0) or higher. Students should not register for thesis/portfolio, unless approved by the faculty advisor.

Please refer to the master of science in recording arts website for additional information: <http://cam.ucdenver.edu/meis/recordingarts.htm>.

School Library and Instructional Leadership MA

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Website: www.ucdenver.edu/education/schoollibrary

Faculty

Information about SLIL faculty is available online at www.ucdenver.edu/education/schoollibrary.

Program Overview

The school library and instructional leadership program within the ILT master's degree program is a nationally recognized NCATE-AASL revised and approved school library media education program that leads to the Colorado Department of Education endorsement for school libraries. The program integrates information literacy standards through the use of collaborative planning, as approved by the American Association of School Libraries. Technology and library resources are seen as tools to increase student achievement by integrating the information literacy standards with the content standards of the classroom teacher. The program adheres to the constructivist theory of resource-based learning and promotes an appreciation of children's and adolescent literature. The program believes that school librarians require education as a teacher as well as a librarian, as advocated by the American Library Association and the International Association of School Libraries. As a school librarian, you will provide collaborative instruction, information access and leadership through the management of your library program and the library resources. Courses are offered in a completely online program, or a monthly Saturday cohort scheduled in communities across Colorado.

Once admitted, students begin a plan of study that typically takes about two years to complete. Consult the SLIL website for more information about specific plans of study, course offerings and expectations of cohort groups.

Admission Requirements

Admission decisions are based on undergraduate and graduate grades, external letters of recommendation and fit with the program as reflected in a letter of intent. In some cases, results of a test (GRE) are also required. Prospective students should consult the SLIL program website for complete admission procedures and requirements.

Professional Expectations

All students in the SLIL program are expected to show a strong commitment to the program and to maintain high academic, professional and ethical standards. Inappropriate or unprofessional conduct is cause for discipline or dismissal from the program.

Technology Expectations

The SLIL program uses computers and related technologies either as a focus or a tool for learning. Students are expected to obtain an e-mail account and check it frequently. In addition to on-campus facilities, SLIL students need convenient access to Internet-connected computers

off campus, either at their place of work or at home. In addition to textbooks, software purchases may be required or recommended for specific classes.

Program Requirements

School library students also have a choice between endorsement-only and full master's programs. The master's program requires a minimum of 36 graduate semester hours. Students complete a plan of study consisting of courses and professional field experience. To receive Colorado teacher endorsement, students are required to pass the PLACE test in school library. This is a Colorado Department of Education requirement.

An Example of Two-Year Plan for School Library Program

Courses are offered only in certain semesters and courses should be taken in a particular sequence based on when you start the program. Advising is required prior to enrolling in a course, even as a non-degree student, in order to ensure the most effective course sequencing and availability of courses.

Typical First Year

Fall	Spring	Summer
SCHL 5530 - Foundations of School Librarianship* LCRT 5790 - Children's Literature Through the Ages***	SCHL 5020 - Collection Development	SCHL 5110 - Integrating Instructional Technology Practices in School Libraries (MA only) LCRT 5201 - Adolescent Literature . ***

Second Year

Fall	Spring	Summer
SCHL 5160 - Managing School Library Programs SCHL 6720 - Research In Information And Learning Technologies *** SCHL 5911 - School Library Field Experience-Elementary **	SCHL 5030 - Information Literacy and Reference SCHL 5912 - School Library Field Experience-Secondary **	SCHL 5040 - Information Storage and Utilization SCHL 6999 - Leadership and Practice in School Libraries (MA Only)

* SCHL 5530 Foundations in School Librarianship should be taken as the first course in your program.

** 80 hours of field experience hours are required. Field experience may be completed over the course of a year; online seminar hours will be completed during the field experience timeframe. Field experiences are completed within a pre-approved school library. See Field Experience Policy for more information.

*** LCRT 5201; LCRT 5790; and SCHL 6720 are offered on-campus in other semesters as well.

Comprehensive Examination for All SLIL Students

The comprehensive exam consists of a professional portfolio where in students demonstrate program competencies through work products and related accomplishments. The portfolio is created throughout the student's program and submitted for faculty review the final semester. For more information, see the ILT website. For complete details about the SLIL program and endorsement requirements, see the ILT website at www.ucdenver.edu/education/schoollibrary.

School Psychology EdS/Licensure

Program Leader: Franci Crepeau-Hobson

Office: Lawrence Street Center, 1113

Phone: 303-315-6315

Fax: 303-315-6349

E-mail: education@ucdenver.edu

Website: www.ucdenver.edu/education/schoolpsychology

Faculty

Information about faculty in the school psychology program is available online at www.ucdenver.edu/education/literacy.

Degree

The educational specialist degree in school psychology is a 75 graduate semester-hour program that leads to licensure in school psychology by the Colorado Department of Education, national certification in school psychology by the National Association of School Psychologists Certification Board and the educational specialist degree (EdS) in school psychology.

This NASP-approved program allows students to create individual plans for meeting program requirements on a full- or part-time basis, during summer and academic year terms and during evening and weekend hours.

The school psychology faculty have adopted a culturally responsive preventative model of school mental health services. Upon completion of the program, students will be able to:

- screen for and recognize the early warning signs of social, emotional or academic risk, distinguishing between these and the typical development of infants, children and adolescents (birth–age 21)
- communicate effectively and consult collaboratively with students, parents, school professionals and community leaders to enhance the academic and mental health skills of students
- incorporate data-based decision making through formal and informal assessment procedures and planning interventions that enhance students' cognitive, social-emotional and behavioral competencies
- plan, implement and evaluate the effectiveness of preventative and remedial therapeutic interventions that strengthen students' mental health and academic skills
- advocate for children and families through the application of legal, ethical and professional standards for practice

Bilingual School Psychologist Concentration Option

This specialization provides School Psychology students with the knowledge and skills to effectively serve English language learners in the school setting. In addition to the two required courses and practicum component, the Bilingual School Psychologist concentration consists of language proficiency assessments to ensure that school psychologists are adequately proficient in another language to provide psychoeducational services. CU Denver provides one of the few

bilingual school psychology concentration areas in the country making our graduates even more desirable in their future endeavors.

Admission Requirements

Successful applicants to the school psychology (SPSY) program will have obtained a minimum 3.0 undergraduate GPA and will score at least 300 on the verbal and quantitative sections (combined) of the Graduate Record Exam (GRE) and a minimum score of a 3.5 on the written portion of the GRE. Applicants will also submit a current resume, a personal statement that outlines their reasons for pursuing a degree in school psychology at CU Denver, and three letters of recommendations. Applicants meeting these minimum standards will be invited to a half-day group interview that includes a program orientation, and a writing assignment.

Application materials are available at

https://soa.prod.cu.edu/degreeprog/applyDEGREEPROG_CUDEN/login.action. All materials must be submitted online by the appropriate deadline—January 15 for fall semester. Application materials include the following:

- part I of the application for admissions
- tuition classification form
- \$50 application fee (make checks payable to the University of Colorado Denver)
- letter of intent
- three letters of recommendations
- two official transcripts from each higher education institution attended (in the original, sealed envelope)
- official GRE scores sent directly to the University of Colorado Denver
- oath and consent
- fingerprint affidavit

Requirements for the Educational Specialist Degree in School Psychology and Licensure

Students will complete course work in child development, learning and cognition, academic interventions, legal and professional issues, assessment, crisis intervention, counseling and other direct, interventions and consultation. Specific course requirements include two prerequisite courses, 20 graduate courses, including two electives and 15 graduate semester hours (1700 clock hours) of supervised experiences. Prerequisites include an undergraduate or graduate courses in Child Development and Measurement Concepts (i.e., RSEM 5110 - Introduction to Measurement).

Students will complete the following core course work:

- CPCE 5010 - Counseling Theories
- EPSY 5240 - Cognition and Instruction
- RSEM 5100 - Basic Statistics
- Or
- RSEM 7110 - Intermediate Statistics

- RSEM 7120 - Advanced Methods in Quantitative Inquiry and Measurement
- Or
- RSEM 7500 - Special Topics: Research and Evaluation Methods
- SPSY 5600 - Behavior Analysis and Intervention
- SPSY 5900 - School-Based Multicultural Interventions
- SPSY 6100 - School Psychology: Professional and Legal Foundations
- SPSY 6150 - Psychoeducational Assessment I
- SPSY 6160 - Psychoeducational Assessment II
- SPSY 6170 - Assessment and Intervention: Birth to 3
- SPSY 6200 - Risk, Resilience, and Prevention in School Mental Health
- SPSY 6350 - School-Based Interventions: Children, Youth and Families
- SPSY 6400 - School-Based Interventions: Groups, Classrooms and Systems
- SPSY 6420 - Crisis Prevention, Planning and Intervention
- SPSY 6450 - School-Based Consultation for Mental Health Professionals
- SPSY 6500 - Identifying and Planning for the Mental Health Needs of Children and Adolescents
- SPSY 6550 - Academic Interventions in School Psychology
- SPSY 6410 - Psychoeducational Assessment of Culturally and Linguistically Diverse Students
- SPSY 6917 - Advanced Practicum in Psychological Assessment

Two of the following electives courses are also required and must be taken prior to Internship:

- CLDE 5140 - Multicultural Education
- CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdn
- CPCE 5280 - Addictions Counseling
- CPCE 6230 - Developmental Counseling in Schools: Prevention & Intervention
- ECED 5202 - Classroom Management to Promote Positive Behavior
- EPSY 5180 - Psychology of Gifted, Talented and Creative Children
- PUAD 6600 - Special Topics: Public Administration
- SPED 5300 - Collaborating in Schools and Communities
- SPED 5450 - Introduction to ABA and Terminology
- SPED 5780 - Literacy Intervention for Students with Disabilities

Supervised Experiences

- SPSY 6911 - School Psychology Practicum
- SPSY 6930 - School Psychology Internship

Total: 75 Hours

The education specialist in school psychology degree also requires satisfactory completion of two professional portfolios (pre-internship and EdS) demonstrating mastery of the program objectives and passing scores (≥ 165) on the PRAXIS specialty exam in school psychology.

Professional Expectations

All students in the SPSY program are expected to show a strong commitment to the program and to maintain a high academic, professional, ethical standards and a sensitivity to diversity. Inappropriate or unprofessional conduct is cause for discipline or dismissal from the program.

Secondary English Education Option, MA Curriculum and Instruction

Literacy, Language and Culturally Responsive Teaching

MA Requirements for the Reading and Writing Option and Secondary English Education Option, plus Reading Teacher Endorsement and Certificate Programs

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu.

Websites: www.ucdenver.edu/education/literacy and www.ucdenver.edu/education/englished

Reading and Writing

Secondary English

Early and Adolescent Literacy Certificates

Faculty

Information about faculty in this program is available online at www.ucdenver.edu/education/literacy.

The faculty of literacy, language and culturally responsive teaching (LLCRT) believe that effective teaching requires an awareness of and the ability to respond to individual differences. LLCRT faculty also emphasize the importance of teachers as scholars and reflective practitioners. In particular, teachers must understand how linguistic and cultural diversity affect their teaching. Two themes run throughout all program offerings. The first concerns the importance of recognizing a variety of literacies—"home" literacies, school literacy, "mainstream" literacy, first and second language literacies—and to develop teaching practices that utilize an understanding of the complexity of literacy development across language contexts. The second theme involves the meaningful use of language and literacy to improve the quality of one's life. As an approach to teaching, this theme emphasizes the creation of diverse, rich environments in which learners experience oral and written language as part of authentic tasks, and where concern for the cultural and linguistic heritage of the students is evident.

Reading and Writing Option and Reading Teacher Endorsement

This master's program is designed for K-6 and 7-12 teachers. This program is a credentialed program meeting the Colorado Department of Education requirements for the reading teacher endorsement. Therefore, students who obtain a master's degree emphasizing reading and writing are certified to hold positions in public and private schools as special developmental and reading teachers in K-6 or 7-12. This program is also valuable for elementary and secondary teachers who wish to enhance reading and writing instruction in their classrooms.

By placing emphasis on the reading, writing and oral and visual language development of culturally, linguistically and academically diverse student populations, this master's program is at the forefront of the field. Language is approached from a socio-psycholinguistic perspective that emphasizes the learner's construction of meaning rather than the learning of isolated skills.

Importance is placed on using theory, inquiry and personal reflection to inform classroom practice. The program prepares teachers to become decision makers capable of developing learner-centered curricula where each student's reading and writing abilities are assessed to address developmental or special needs.

Curriculum

Course offerings lead to an MA degree in curriculum and instruction with an emphasis in reading and writing, as well as a reading teacher endorsement, at one of two levels: K–6 or 7–12.

Those who have completed University of Colorado Denver's graduate teacher education licensure program must earn an additional 27 semester hours to obtain the MA and endorsement. Those who completed licensure through other means must earn an additional 36 semester hours to obtain the MA and endorsement.

Teachers may add a reading teacher endorsement to an already-earned master's degree in education by taking those courses listed under the chosen endorsement level. (In the state of Colorado, the reading teacher endorsement cannot simply be added to a bachelor's degree.) Electives and core courses are not required for those seeking the endorsement only. Two additional courses must be taken in other areas specified by the Colorado Department of Education. In many cases, previous master's degree courses will satisfy this requirement.

Requirements for Reading and Writing Program (Degree/Endorsement Options)						
	ELEMENTARY (K-6)			SECONDARY (7-12)		
Course	MA & CDE Endorsement	MA & CDE Endorsement (when added to CU Denver's graduate teacher education licensure program)	CDE Endorsement Only	MA & CDE Endorsement	MA & CDE Endorsement (when added to CU Denver's graduate teacher education licensure program)	CDE Endorsement Only
Required		Required	Required	Required	Required	
LCRT 5810 - Wksp: Lang Acq & Development	Required	Required	Required	Required	Required	Required
LCRT 5010 - Foundations of Language	Required	Required	Required	Required	Required	Required

LCRT 5710 - Primary Literacy: Pre-3rd Grade	Required	Required	Required			
LCRT 5720 - Writing: Process, Development, and Teaching Grades 3-12	Required	Required	Required	Required	Required	Required
LCRT 5730 - Language and Literacy Across the Curriculum	Required		Required	Required		Required
Children's literature course, per advisor approval	Select one	Select one	Select one			
LCRT 5201 - Adolescent Literature				Required	Required (<i>waived if taken as part of English Licensure</i>)	Required
LCRT 6910 - Seminar and Practicum in Literacy and Language, K-6	Required	Required	Required			
LCRT 6911 - Seminar and Practicum in Literacy and Language, 7- 12+				Required	Required	Required
LCRT 5055 - Linking Assessment and Instruction in Language and Literacy	Required	Required	Required	Required	Required	Required
LCRT 6915 - Seminar and	Required	Required		Required	Required	Required

Practicum in Literacy Professional Development						
Core course in Research and Evaluation Methodology - see list below	Select one	5080		Select one	5080	
Interdisciplinary core course - see list below	Select one			Select one		
Graduate-level School of Education and Human Development elective				Select one		
Portfolio	Required	Required		Required	Required	
PLACE Exam	Required	Required	Required	Required	Required	Required
Total Semester Hours	36	27	27	36	27	27

Secondary English Education Option

The master's program in secondary English education is designed to enhance the preparation of middle and high school English/language arts teachers. Students complete course work in language development, assessment and field experiences. With the help of their advisor, they also select specific courses from the English Department or within the School of Education and Human Development that provide a well-rounded repertoire of knowledge and skills to fulfill the needs of an English educator. Special consideration is given to working with diverse ethnic populations.

Program Requirements

To earn a master of arts degree in curriculum and instruction with an emphasis in secondary English education, students must complete the following:

- 30 graduate semester hours in English education
- 6 graduate semester hours of core courses
- performance-based assessments that culminate in a portfolio finalized in the last semester of the program as fulfillment of the MA comprehensive exam requirement

Each student's course plan is developed in conjunction with his/her advisor. Please review www.ucdenver.edu/education/englished for recommended course sequence.

LCRT 5055 - Linking Assessment and Instruction in Language and Literacy Semester Hours: 3

LCRT 5201 - Adolescent Literature Semester Hours: 3

LCRT 5200 - Theory and Methods of English Education Semester Hours: 3

LCRT 5810 - Wksp: Lang Acq & Development Semester Hours: 3

LCRT 5010 - Foundations of Language Semester Hours: 3

LCRT 6911 - Seminar and Practicum in Literacy and Language, 7-12+ Semester Hours: 3

Research and Evaluation Methodology core course (see list below).

Interdisciplinary core course (see list below).

Four electives, per advisor approval, from the English department and/or the School of Education & Human Development. The following are recommended:

LCRT 5720 - Writing: Process, Development, and Teaching Grades 3-12 Semester Hours: 3

-OR-

ENGL 5110 - Denver Writing Project Semester Hours: 3

Courses in working with English language learners and in instructional technology may also be helpful. For a technology course, please contact the professor about prerequisite knowledge.

Total: 36 semester hours

Program Requirements--When Added to CU Denver's Graduate Teacher Education Licensure Program

MA in curriculum and instruction with emphasis in secondary English education, when added to CU Denver's graduate teacher education licensure program:

- 18 graduate semester hours
- performance-based assessments that culminate in a portfolio finalized in the last semester of the program as fulfillment of the MA comprehensive exam requirement

Each student's course plan is developed in conjunction with his/her advisor. Please review www.ucdenver.edu/education/englished for recommended course sequence.

FNDS 5050 - Critical Issues in American Education Semester Hours: 3

-OR-

SPED 5300 - Collaborating in Schools and Communities Semester Hours: 3

RSEM 5080 - Research In Schools Semester Hours: 3

Four electives, per advisor approval, from the English Department and/or the School of Education and Human Development. The following are recommended:

LCRT 5720 - Writing: Process, Development, and Teaching Grades 3-12 Semester Hours: 3

-OR-

ENGL 5110 - Denver Writing Project Semester Hours: 3

Courses in working with English language learners and in instructional technology may also be helpful. For a technology course, please contact the professor about prerequisite knowledge.

Total: 18 semester hours

Core Courses

Research and Evaluation Methodology

RSEM 5000 - Orientation to Research and Measurement in Education Semester Hours: 3

RSEM 5050 - Classroom Assessment Semester Hours: 3

RSEM 5080 - Research In Schools Semester Hours: 3

RSEM 5100 - Basic Statistics Semester Hours: 3

RSEM 5120 - Introduction to Research Methods Semester Hours: 3

RSEM 5110 - Introduction to Measurement Semester Hours: 3

Interdisciplinary

EPSY 5100 - Advanced Child Growth and Development Semester Hours: 3

EPSY 5140 - Advanced Adolescent Growth and Development Semester Hours: 3

EPSY 5220 - Adult Learning and Education Semester Hours: 3

EPSY 6200 - Human Development Over the Life Span Semester Hours: 3

FNDS 5050 - Critical Issues in American Education Semester Hours: 3

FNDS 5420 - History and Philosophy of Education: Twentieth Century America Semester Hours: 3

LCRT 5140 - Multicultural Education Semester Hours: 3

LCRT 5150 - Culture of the Classroom Semester Hours: 3

CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdns Semester Hours: 3

CLDE 5820 - Techniques in Teaching English as a Second Language Semester Hours: 3

Cumulative Portfolio

The MA portfolio counts as the comprehensive exam for the master's degree. The portfolio is an accumulation of the performance based assessments completed during program courses and reflects on the student's development over the course of the degree program. Reading and writing students must include confirmation of Reading Teacher PLACE exam registration in their portfolios. Information about the PLACE is online at www.place.nesinc.com.

Course Scheduling

During the fall and spring semesters, most university courses are offered in the late afternoon and evening and meet for three hours once a week over a 16-week semester. Some alternative course schedules are available, such as meeting on five Friday-evening/all-day Saturday combinations. In the summer semester, three- to eight-week sessions are offered, and courses may be in the morning, afternoon or evening.

Planning

For practicing full-time teachers, we recommend taking one course each fall and spring semester, and up to two courses each summer. Plan carefully because courses are intended to build upon each other, and some courses are only offered once a year.

Active Status

Students must complete their programs within seven years, maintaining a GPA of 3.0. Students typically take four courses each calendar year. Failure to enroll over three contiguous semesters will result in a requirement to submit readmission materials.

Early and Adolescent Literacy Certificates

The early literacy certificate and adolescent literacy certificate each include three graduate-level courses (for a total of 9 semester hours) and are conveniently offered entirely online. They are specifically designed to help licensed teachers develop the skills necessary to reach student readers. To find out more, please visit www.ucdenver.edu/education/cpe or email cpe@ucdenver.edu.

Social Science MSS

- Graduate School Rules apply to this program

Requirements for Admission

General rules for admission into the Graduate School apply to admission into the MSS program.

For admission as a regular graduate student, applicants must:

- have earned a bachelor's degree
- submit two official copies of all transcripts, with an overall GPA of at least 3.0 out of 4.0
- have appropriate undergraduate training or professional background or indicators that supply evidence of ability to pursue the MSS degree
- include a writing sample
- submit three letters of recommendation (at least two from academic sources)
- submit a written statement specifying the goal of advanced study in the social sciences, expressed in clear, correct and effective English
- standardized test scores are not required, but will be considered if submitted

After meeting all other requirements for admission, applicants may be required to have an interview to discuss their interest in the program and their plans for study. For out-of-state applicants, an appropriate substitute for the interview may be determined by the director.

Provisional Admission:

Applicants may be admitted as provisional-status graduate students if their complete record indicates a high probability of success.

Non-degree Students:

Potential applicants may take graduate-level courses as nondegree students (unclassified student with a bachelor's degree) if they:

1. Wish to strengthen their record in order to demonstrate that they can successfully complete courses in the program
—or—
2. Wish to start courses in the program prior to completing their application. Up to 12 semester hours taken as a nondegree student may be accepted by the program once a student has been admitted into the program (the 12-hour limit also includes graduate work from another university).

International Students:

International students must also meet UC Denver requirements for international admission. See the Information for International Students section of this catalog or call 303-315-2230 for further information.

Degree Requirements

The MSS is a 36-semester-hour program, of which 30 hours must meet all specifications of the Graduate School . Throughout their work toward the MSS degree, students must maintain at least a *B* (3.0) average in all courses. A grade below *B-* will not be counted toward the degree.

Students may pursue courses around any coherent theme with the approval of MSS program directors and advisors. In addition to the unlimited self-structured options, there are five tracks in place from which students can select: women's and gender studies, international studies, social justice, society and environment and community health science.

Three Required Core Seminars

The following two courses must be taken during the first year following entrance to the program:

- SSCI 5013 - Philosophical Problems in the Social Sciences and Humanities
(Offered spring only)
- SSCI 5020 - Elements of Social Thought
(Offered fall only)

The third required course should be taken later in the program when students are ready to write a proposal for the thesis or project:

- SSCI 5023 - Research Perspectives in Social Science
(Offered spring only)

Total: 9 Hours

Electives

Additionally, students must complete a total of 21-24 semester hours comprising a coherent selection of courses from a variety of disciplines. All courses for the self-structured portion of the program must be selected with the approval of one of the MSS program directors.

A total of two independent study courses and two 4000-level undergraduate courses taken while enrolled in the program may count toward the degree. All independent study contracts must be approved by one of the program directors. The remaining course work must be 5000/6000-level courses offered through various departments.

Students completing a project take 24 hours of electives, while thesis students complete 21 hours of electives.

Total: 21-24 Hours

Thesis or Project

In order to proceed with a thesis or project, all students must submit a proposal approved by three faculty members (and approved by one of the program directors in cases where one of the directors is not serving on the committee). Students must also pass an oral comprehensive exam to graduate. Total hours required are: 3 hours of project and 6 hours of thesis.

- SSCI 6950 - Master's Thesis
- SSCI 6960 - Master's Project or Report

Total: 3-6 Hours

Degree Total: 36 Hours

Sociology MA

► Graduate School Rules apply to this program

Program Requirements

Two plans of study are available for students. Both options require a minimum of 36 hours. A thesis is required for the thesis option, and a project and internship are required for the nonthesis option.

Required Courses

Core courses are required for all graduate students, regardless of plan. Students who are officially admitted to the program are required to follow a sequential plan. SOCY 5000 must be taken in the first fall semester. Students must take SOCY 5014 before taking SOCY 5015. Similarly, SOCY 5024 must be taken before SOCY 5183. Students must earn a *B* or better in all core courses.

- SOCY 5000 - Professional Seminar: Sociological Inquiry
- SOCY 5014 - Classical Sociological Theory
- SOCY 5015 - Contemporary Sociological Theory
- SOCY 5024 - Seminar: Research Methods I
- SOCY 5183 - Seminar: Quantitative Data Analysis

Total: 15 Hours

PLANS OF STUDY

Students must also choose **one** of the following options:

Thesis Option Requirements

Core course requirements	15 Hours
Five elective courses	15 Hours
Master's thesis	6 Hours total required

- SOCY 5955 - Master's Thesis

Thesis Option Total: 36 Hours

Nonthesis Option Requirements

Core course requirements	15 Hours
Five elective courses	15 Hours
Internship	3 Hours
Master's project	3 Hours

- SOCY 5964 - Master's Report

Nonthesis Option Total: 36 Hours

Elective Credit Requirements (15 semester hours for both options)

Students can take an unlimited number of sociology graduate (5000-level) seminars to fulfill their 15 elective semester hours, or a combination of the following:

- Independent study: maximum 6 semester hours
- Courses in other departments: maximum 6 semester hours
- Internship: maximum 3 semester hours

For further information about the Department of Sociology or the MA program, visit the Sociology website.

Spanish MA

- Graduate School Rules apply to this program

The CU Denver modern languages faculty offers a Spanish master's degree program that is an alternative to the exclusively literary studies that traditionally lead to doctoral programs. By integrating language, literature and cultural studies with ancillary work in other disciplines, the degree provides a broader expertise that will lead to or enhance careers in teaching, government, social services, business and international trade. Students will tailor the program to their specific interests and needs by developing a topical focus and including courses from outside the Department of Modern Languages, through which they may develop a secondary emphasis that can be incorporated in a thesis project.

Requirements for Admission

In addition to the general admission requirements of the Graduate School, the Spanish MA program requires:

- an undergraduate GPA of at least 2.5, with a GPA of at least 3.0 in Spanish courses
- a bachelor's degree in Spanish is not required, although all candidates must demonstrate Spanish oral and written proficiency at the advanced level, as defined by the American Council on the Teaching of Foreign Languages
- two copies of all college transcripts
- three letters of recommendation
- a statement of the applicant's purpose in pursuing the degree, in Spanish; any gaps, weaknesses or special circumstances affecting an applicant's academic record should be addressed in the statement of purpose portion of the application
- a TOEFL score higher than 550 for students whose previous academic degree was completed in a non-English-speaking country

In special circumstances, the department may modify its admission standards.

Program Requirements

Candidates in Spanish must satisfy the general requirements of the Graduate School as outlined in this catalog and will be required to complete 33 hours of course work distributed with respect to one of the following two options:

Thesis option (course work + thesis):

- SPAN 5000 - Introduction to Graduate Studies in Spanish
Literature/culture and linguistics, including at least 6 hours in literature/culture and 6 hours in linguistics: **15 semester hours**
Courses outside the Department of Modern Languages, as approved by advisor: **6 semester hours**
Elective, as approved by advisor: **3 semester hours**
Thesis preparation and writing: **6 semester hours**
- SPAN 5950 - Master's Thesis

Thesis Option Total: 33 Hours

Nonthesis option (course work):

- SPAN 5000 - Introduction to Graduate Studies in Spanish
Literature/culture and linguistics, including at least 6 hours in literature/culture and 6 hours in linguistics: **18 semester hours**
Courses outside the Department of Modern Languages, as approved by advisor: **6 semester hours**
Electives as approved by advisor (may include another course outside the Department of Modern Languages): **6 semester hours**

Nonthesis Option Total: 33 Hours

Notes:

1. No more than one undergraduate course (3 semester hours) may be applied toward the MA degree and then only in an ancillary field outside the Department of Modern Languages.
2. Students choosing the nonthesis option may elect to take three courses (9 semester hours) outside the department.

Financial Aid

The department offers a limited number of teaching assistantships for graduate students on a semester-by-semester basis. Appointment is competitive and is typically based on a student's academic credentials. Contact the department for details. For information on grants, federal work-study programs, scholarships and loans, contact the Office of Financial Aid (303-556-2886).

For further information concerning the master's degree in Spanish at CU Denver, direct inquiries to the graduate advisor.

Special Education MA

Special Education

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Website: www.ucdenver.edu/education

Special Education Program Overview

The special education program within the initial professional teacher education division offers a special education generalist license and a special education endorsement as well as a master of arts degree in special education. All special education program options foster the development of critical reflection, inquiry about teaching and learning, as well as the breadth and depth in content knowledge necessary to work effectively in elementary and secondary classrooms. The program faculty promote the ability of teacher candidates to meet the needs of an increasingly diverse population of K–12 learners, as well as to participate productively in and lead school renewal.

The faculty in the program in special education value collaborative relationships between general and special educators, so we offer our teacher candidates the option of pursuing a dual endorsement in both general and special education to offer our teacher candidates the option of pursuing a dual endorsement in both general and special education.

Special Education Program Distinctions

Special Education Licensing Pathways

To be a licensed as a special education generalist for grades ages 5-21, a teacher candidate must hold a bachelor's degree from a four-year accepted institution of higher education, have completed the plan of study from one of the program options for the preparation of special education generalist, have passed the state special education assessment and have demonstrated all required state and national standards.

Program options for the special education generalist include: 1) initial licensure as a special education generalist; 2) dual licensure in either elementary or secondary education and as a special education generalist; and, 3) for those who already hold a Colorado teaching license, an added endorsement, which is also fully online. There is also an option to count these courses towards a masters in special education which will require an additional 12 semester hours of face to face course work and portfolio.

The time needed to complete the various special education generalist program options varies based on the needs of teacher candidates. In addition to traditional on-campus offerings, a wide selection of courses are available in online formats. During the academic year, core special education courses are scheduled in late afternoons and evenings to avoid conflict with teaching responsibilities.

Professional Development Schools

While in the licensure portion of the program, teacher candidates work in a partner school one to four days per week, depending on the internship. University courses are closely interrelated with the four internship experiences in which teacher candidates gradually assume responsibility for teaching. Special education teacher candidates engage in a series of four internships from the beginning of the program to the end of the program. Dual teacher candidates engage in two internships that result in a general education license at the elementary or secondary level and then two special education internships and additional course work; leading to an endorsement in special education. The partner schools are located in several Denver metropolitan districts with most serving large populations of low-income and/or minority students, as well as a sizeable number of students for whom English is a second language and students with special needs. Each partner school is supported by a site professor from the university one day per week and by a master teacher, called a site coordinator.

Assessment

In 2000, Senate Bill 154 required all Colorado teacher education institutions to become performance based. PBA stands for performance based assessment. PBAs are created that correspond to many of the teacher education courses and concurrent practice in the series of internships. In doing so, knowledge can be evaluated as a result of coursework and performance in schools simultaneously. As teacher candidates progress through the program, they will be introduced to Performance Based Assessments (PBAs) and will be guided and supported in both course work and internships. Students seeking dual licensure are responsible for four additional PBAs associated with their second endorsement in special education.

The PBAs are:

1. Literacy Instruction & Assessment (elementary and secondary versions)
2. Mathematics Instruction & Assessment (elementary)
3. Subject Matter Content (secondary)
4. Student Profile
5. Classroom Management
6. Teacher Work Sample (TWS)
7. Internship Performance Rubric (used at the end of each internship)

The four additional PBAs that all teacher candidates in the special education program are expected to proficiently complete include:

1. Assessment
2. Collaboration & Positive Behavior Supports
3. Literacy Instruction for Students with Identified Special Needs

4. The Individualized Education Program (I.E.P.) Process

Passing the PLACE special education generalist examination prior to the final internship is also required before a candidate is eligible for a provisional special education generalist teaching license in Colorado. Dual candidates must also pass state content knowledge exams prior to admission.

Programs of Study

Due to the complex nature of state mandated influences of teacher preparation courses and constantly evaluated the program to meet student's needs, please refer to the most current version of the Special Education Handbook for academic requirements for this program.

Requirements for Admission

The program conducts admissions each semester. Summer admission deadlines are January 15 and February 15; fall admission is March 15 and April 15. Spring admission deadlines are August 15 and September 15.

Teacher Education Information Sessions

All prospective teacher candidates are strongly encouraged to attend an information session before applying to the program. Information sessions are held twice a month lasting approximately 60-90 minutes. Advisors will be available to provide prospective students transcript reviews and pre-admission advising. To more effectively facilitate this process, please bring copies of all transcripts with you. A calendar of upcoming information sessions can be viewed on the CU Denver website. Go to www.ucdenver.edu/education and click on "Information Session" to reserve a space.

Teacher Education Program Requirements

- Applicants to the UCTE program must hold at least a bachelor's degree with a minimum undergraduate cumulative GPA of 2.75 for admission.
- Graduate candidates with a GPA less than 2.75 are required to take the GRE, with a combined score of 1000 on the verbal and quantitative sections; or the Miller Analogies Test, with an average score of 400–600, before consideration for admittance.
- All elementary education candidates must have a liberal arts major or equivalent content courses that provide a broad background of knowledge. *
- All secondary education candidates must have a major or major equivalent of at least 30 semester hours in their desired teaching field. *
- Copy of passing official scores for PLACE or PRAXIS II.
- A complete application on file that can be obtained at information sessions, online or through the Student Services Center.

*This is determined through transcript evaluations at information sessions.

Urban and Regional Planning MURP

Curriculum

Our curriculum balances a strong, comprehensive set of core courses with a self-directed path through a wide range of elective choices.

Unique Program Features

Integrated throughout our program are four distinguishing features:

Self-Directed Curriculum:

In our program, students have the ability to craft an education suited to their career goals and personal interests. Beyond the required core curriculum, students may choose any combination of elective courses, whether oriented towards one of our three Program Initiatives, a traditional specialization, or a generalist survey of the planning field.

Experiential Learning:

Throughout our program, students have significant opportunities to gain hands-on planning experience and have direct interaction with Colorado's planning professionals. We use Denver's diverse urban landscape as a real-world classroom for students to experience and analyze the built environment.

Physical Planning and Design:

We emphasize physical planning and design throughout our curriculum. Housed within the College of Architecture and Planning, we work closely with the College's Architecture, Urban Design, Landscape Architecture, and Historic Preservation programs.

Innovative Planning Technologies:

We integrate innovative planning technologies into many of our program's courses and activities. We capitalize on the Denver region's entrepreneurial spirit and tech-focused economy by providing access to state-of-the-art planning technologies and teaching students how these tools can support the planning process.

Program Initiatives

Our focus is on teaching students how to address critical issues and to solve the complex problems facing cities and regions today. In order for planners to take the lead in the city-building process, they need to understand the breadth of their field and know how to work in cross-disciplinary teams. By structuring our whole program—research, curriculum, faculty and student efforts, etc.—around issue areas, which we call Initiatives, we encourage broad understanding and creative problem-solving, rather than professional silos. The MURP Program's three Initiatives represent issues at the forefront of the planning profession today, and are also topics that are particularly prominent in Denver and Colorado.

Healthy Communities:

The link between human health and the built environment has become a key factor in planning cities and regions. Colorado is known for its physically fit and active adult population, but our vulnerable populations face significant challenges such as childhood obesity, disconnected neighborhoods, and lack of access to healthy food. Colorado has become a national leader in

finding ways to plan and design healthier environments, and the MURP Program's Healthy Communities Initiative is part of that effort. We work with partners at the local, state and federal levels, as well as the non-profit, educational and private sectors, to provide students comprehensive and interdisciplinary training in the tools, innovations and policies necessary for creating physically, socially and economically healthy communities.

Urban Revitalization:

After decades of suburbanization, segregated land uses, and automobile-dependent development, the US is now experiencing a resurgence of traditional urbanism and a reorientation toward central cities. Nowhere else is that phenomenon more evident than in Denver, where infill and transit-oriented development, historic preservation, adaptive reuse, and multi-modal transport are transforming the urban landscape. The MURP Program's Urban Revitalization Initiative gives students opportunities to engage with local developers, planners, designers and policymakers to help revive and enhance established cities, retrofit the suburbs, and plan sustainable new developments.

Regional Sustainability:

Climate change, environmental degradation, resource scarcity, and sprawling development present critical challenges to planners worldwide. In the Rocky Mountain West, the impacts are evident in habitat loss, wildfire risk, and conflicts over water and energy resources, among others. The MURP Program's Regional Sustainability Initiative explores ways that Colorado and its neighbors can tackle these issues together. At the metropolitan level, Denver and its adjacent communities already serve as a model for regional planning and cooperation, exemplified by the visionary FasTracks transit program. Our Initiative draws on Denver's success in regional land use, transportation, economic development and resource planning to help students understand how built and natural environments can co-exist more sustainably at various regional scales.

Program Requirements

Completing the MURP degree requires 54 credit hours, comprised of 36 credits of required "core" courses and 18 credits of elective courses. (Six of the 36 required credit hours represent a self-directed Capstone project or thesis.) Most full-time students complete the program in two years, while other students complete the program at a slower or part-time pace.

New students begin the program of study in the fall semester. Full-time students typically take approximately 12 credit hours per semester; taking more than 15 is generally ill-advised. Students are strongly encouraged to primarily take core courses during their first year of study. With the exception of the studio and capstone courses, most core courses are offered only one semester per year so it is important to pay attention to the scheduling to ensure your desired graduation date.

Potential Specializations

We encourage students to view their planning education through a fresh perspective aimed at a planning goal or agenda, rather than a "job description." However, we also recognize that some students may want their MURP degree to focus along a traditional specialization, such as Transportation Planning or Economic Development. To ensure all our students have the

educational experience they are seeking, we provide exceptional coverage across many traditional topics of specialization.

Advising

Given the self-directed nature of the MURP program, students are highly encouraged to seek advice on their curriculum path and career direction from an academic advisor. New students are assigned a faculty advisor, but are free to choose their own as they proceed through the program.

Students should work with their advisor to maintain and complete a MURP Program Planning Form. It is a useful tool for planning the student's progress through the program and ensuring that all graduation requirements have been fulfilled.

Advanced Standing

Students with prior education in urban planning may qualify for advanced standing. Up to 9 credits of course waivers may be granted when the prior coursework meets prescribed level, content and quality thresholds. To be awarded advanced standing, the student must complete a waiver form and provide documentation of their prior coursework; all waivers must be approved in writing by the Department Chair.

Core Courses

The MURP Program curriculum includes 10 required "core" courses totaling 36 credit hours. Together, these represent a broad and robust survey of the most critical topics in the planning field. The list below shows the 10 courses, the program year in which the course is intended to be taken, and the credit hours granted.

Year 1 - Fall

- URPL 5010 - Natural and Built Environments
- URPL 5000 - Planning History and Theory
- URPL 5040 - Planning Methods
- URPL 5030 - The Planning Profession

12 credits

Year 1-Spring

- URPL 5050 - Urban Development
- URPL 5020 - Planning Law and Institutions
- URPL 5070 - Planning Skills Workshop
- URPL 5060 - Planning Technologies Workshop

12 credits

Year 2

- URPL 6000 - Planning Project Studio
- URPL 6900 - Planning Capstone A
- URPL 6905 - Planning Capstone B

12 credits

Elective Courses

MURP students craft a self-directed educational path. Students may choose any combination of courses, whether aligned with one of our three Initiatives, a traditional specialization, or a generalist survey of the planning field. We offer MURP students a broad selection of elective courses within the program. In addition to these courses, numerous other elective courses applicable for MURP credit are available through our allied programs within the College (Architecture, Urban Design, Historic Preservation, and Landscape Architecture) and through cross-listed courses offered by other CU Denver programs, such as Public Affairs, Geography, and Business. Further, students can take up to 6 credit hours of courses entirely outside the MURP program.

Dual Degree Options

As part of encouraging among planners an appreciation for and knowledge of the perspectives and practices of the other disciplines that participate in planning and city-building, we offer several dual degree opportunities, both within the College of Architecture and Planning and with other units across the University of Colorado system. In every instance the total credit requirement of the Dual Degree is considerably less than would be needed if each degree were independently pursued.

Applicants to any dual degree option must apply to and gain separate admission to each degree program. Once admitted, the student cannot graduate from either program until the work is completed for both degrees.

The degrees that may be combined with the Master of Urban and Regional Planning include:

- Master of Architecture (MURP+MARCH)
- Master of Landscape Architecture (MURP+MLA)
- Master of Public Health (MURP+MPH)
- Master of Public Affairs (MURP+MPA)
- Master of Business Administration (MURP+MBA)
- Juris Doctorate (Law Degree) (MURP+JD—in collaboration with the CU Boulder Law School)

Certificate Programs

The College offers an official certificate program in geospatial information science (GIS). The Certificate builds upon the extraordinary depth of the GIS community in Colorado and the interdisciplinary teaching and research occurring at the Facility for Advanced Spatial Technology (FASTLab) at CU Denver.

The GIS certificate requires 18 credit hours of GIS-related coursework; 6 of these may count toward your MURP degree. The GIS certificate enables qualified students to develop highly technical expertise in GIS technology and skills, and is intended for students who wish to work in GIS-specific careers.

Internships and Mentorships

Internships are key elements in the MURP Program's approach to providing students with hands-on, experiential learning. Internships provide the opportunity to see planning professionals in action, which helps students develop a clearer understanding of their own career goals, educational needs, and personal passions. Mentorships provide an opportunity for students to connect personally with a practicing professional for guidance, advice and inspiration.

We strongly encourage students to experience a professional internship and/or mentorship during the course of the MURP Program. Students can receive individualized advising, resume writing and job search skills, as well as help securing internship positions. While the professional experience of an internship is in itself valuable, to receive academic credit for MURP internships, students will participate in regular colloquia, complete writing assignments in which they draw reflectively on their workplace experiences and connect them to their classroom work, and document their contributions to their employer. Three credits of the 54-credit MURP Program may be undertaken through internship work.

Urban Design MUD

- Graduate School Rules apply to this program

Program Information: Jeremy Németh

Telephone: 303-315-0069

Email: jeremy.nemeth@ucdenver.edu

Program Description

The master of urban design (MUD) is an intensive, calendar year, post-professional degree program for students already holding a first professional degree in architecture, landscape architecture or urban and regional planning (e.g., BArch, BLA, MArch, MLA or MCRP/MURP or equivalents). The interdisciplinary program uses Denver as an urban laboratory but the globe as a reference, educating future designers about the unique place the city holds in addressing the critical problems of our time.

The program began in 1969 and counts several hundred alumni practicing around the world. Our student body is extremely diverse, with recent students from Bangladesh, China, Colombia, India, Iran, Japan, Libya and Saudi Arabia. These students join our domestic students to examine contemporary urbanism and design practice through an interdisciplinary, studio-based curriculum taught by a multi-disciplinary faculty. Coursework is capped off by the International Studio held each summer in China's rapidly urbanizing Shanghai-Nanjing corridor.

The program is organized around three central themes reinforced by core studios and seminars:

Sustainable cities

We take a holistic approach to designing the livable city. Since more than half the world's population lives in cities, with that number set to increase to two-thirds by 2030, we must anticipate the ecological impacts of our design decisions. In preparation for a post-carbon era, we address concerns related to climate change, energy usage, public health, food production and resource availability through an integrated approach to the design of urban settlements. Our students re-imagine and re-interpret urban systems - from transportation networks to hydrological systems to zoning codes to social movements - with the goal of creating cities that are at once socially just, economically diverse and ecologically resilient. These challenges are unprecedented and must be urgently addressed: we believe that urban designers are best positioned to meet them head on.

Local to global

We believe urban designers must recognize the interrelated local and global impacts of their actions and understand the interdisciplinary nature of urban problems. We address design issues at all scales, from the individual public space to the neighborhood, city, region, nation and world. This ecological approach acknowledges that all sites are embedded within larger systems, a concept we engage in all our studios. In the fall and spring, students examine the Denver metropolitan area, a progressive, yet prototypical, urban laboratory experiencing significant growth and development and home to every urban condition imaginable, from dense downtown infill to sprawling edge cities to the New Urbanism-inspired Stapleton airport brownfield redevelopment. The Front Range is a national leader in design and planning innovation, as

represented by the multi-billion dollar FasTracks transit project, Denver's groundbreaking new citywide form-based code, Boulder's open space acquisition policies and energy municipalization effort, Arvada's GEOS net-zero energy neighborhood, and Fort Collins' closed-loop brewery-oriented development. Students apply the skills and knowledge gained in their local study in the summer term via a five-week collaborative studio and design competition in China's Shanghai-Nanjing corridor with faculty and students from the nation's top schools of architecture and design at Tongji University and Southeast University.

Innovations in practice

We train our students to become critical, reflective professionals with a deep understanding of urban design theory and practice. All our graduates possess knowledge of contemporary urban thinking as well as exceptional technical, verbal and graphic communication skills. Our curriculum is informed by innovations in current practice: we undertake real projects with real clients, and all studios are taught by leading practitioners from the top design firms in the region. To address the most complex social-ecological problems of our time, we see high demand for graduates who possess multiple talents, a broad understanding of urban planning, architecture, landscape, real estate development, and urban politics and economics, and the ability to work not only with design professionals but also engineers, policy makers, environmental scientists and the public. Students take collaborative, multidisciplinary studios with all College of Architecture and Planning students in an environment that more accurately reflects professional practice, with shorter studios, team projects and design charrettes. Importantly, our MUD Internship Program aims to place all incoming students into an internship with the region's top design firms. Participating firms in the 2012-2013 academic year include: AECOM, Civitas, Design Workshop, Norris Design, RNL Design, OZ Architecture, studioINSITE and Tryba Architects. College units including the Colorado Center for Community Development (CCCD) frequently hire MUD students as research assistants (RAs) and the departments of Architecture, Landscape Architecture and Planning and Design often hire teaching assistants (TAs) from our incoming MUD students.

Prerequisites

Students are required to hold a first professional degree in architecture, landscape architecture or urban and regional planning (e.g., BArch, BLA, MArch, MLA, MURP/MUP or equivalents).

Admissions

The master of urban design admissions committee accepts applications for fall semester entry. The program does not allow entry to the program in any spring semester. Although the MUD program has a rolling admission process, the priority deadline is March 15. Applications will be reviewed on a space-available basis until June 30.

Pre-professional students can enter the MUD with advanced standing by first earning a professional master's degree in the College of Architecture and Planning. For more information on the MArch+MUD, MLA+MUD or MURP+MUD, visit the college website.

The requirements the admissions committee considers are:

- Evidence of a professional degree (BArch, BLA, MArch, MLA, MURP/MUP or equivalent)
- At least a 3.2 undergraduate or graduate cumulative GPA
- A portfolio (8.5 × 11-inch bound document) that includes:
 - Your statement of purpose (which should include your educational and professional goals)
 - Résumé (which describes your educational and professional background)
 - Examples of student or professional projects
 - A list of courses that you have taken that relate to design and planning
 - A writing sample from previous professional or academic work
 - Graduate Record Exam (GRE) scores if available (not required for admission)
 - A separate one-page statement indicating whether you would like to participate in the MUD Internship Program. NOTE: If you do agree to participate, your acceptance letter will indicate the firm with whom you have been matched.

Program Requirements

The requirements for the postprofessional master of urban design (MUD) degree depend on your current standing and educational background. The basic study plan is a 39-semester-hour plan that includes two elective courses. Students obtaining a first professional degree in the University of Colorado Denver College of Architecture and Planning may receive up to 12 semester hours of advanced standing.

Core Courses

The basic study plan is 36 semester hours including these core courses, plus two elective courses (could include an independent study or internship).

- URBN 6610 - Urban Design Studio I
- URBN 6611 - Urban Design Studio II
- URBN 6612 - International Studio
- URBN 6641 - Design Process/Practice
- URBN 6642 - Design Policy/Regulation
- URBN 6644 - Sustainable Urbanism
- URBN 6633 - Form and Formation of Cities

Total: 36 hours

Dual Degree Programs

Bioengineering Dual MS

- Graduate School Rules apply to this program.

Master of Science (MS) Dual Degree Program

This program is intended for students already enrolled or accepted into another MS program in the University of Colorado system. Please contact us for advising.

Bioengineering MD/PhD

- Graduate School Rules apply to this program.

MD/PhD Degree Program

For students already enrolled or accepted into the Medical Scientist Training Program (MSTP) in the School of Medicine at University of Colorado Anschutz Medical Campus. Degree completion in 7-8 years with highly individualized training pathway and multidisciplinary research dissertation. Please contact us for advising.

Business Administration/Business MBA/MS

The Business School also offers MBA/MS dual degree programs for each function of business. The program consists of a minimum of 66 semester hours of graduate work and leads to both an MBA degree and an MS degree, which must be completed within seven years and one semester. See MS program pages for a list of functional areas. Contact a graduate academic advisor for details, 303.315.8200.

Business Administration/Global Management MBA/MGM

This unique combined degree is offered in cooperation with the Thunderbird School of Global Management located in Glendale, Arizona, a suburb of Phoenix. Thunderbird has established eight dual programs with universities in the United States. The student applies independently to both schools and, if admitted, earns the MBA from CU Denver and a Master of Global Management degree from Thunderbird. The student begins the program at CU Denver and, after completing 36 semester hours (12 courses) required for the MBA, transfers to the Thunderbird campus and takes a minimum of 30 semester hours (10 courses) for the MGM. When all dual degree requirements are finished, the student is awarded a diploma from each school. For more information about admission to the MBA on the Denver campus, refer to the appropriate section of this chapter. For specifics about the dual MGM application process, call Felicia Welch, the associate director of academic and international services at Thunderbird, 1-800-848-9084.

Business Administration/Medicine MBA/MD

The MBA/MD is for medical students at the University of Colorado School of Medicine who wish to pursue a career in administrative medicine or who seek additional training in administration or business. The program is designed to be completed in five years, at which time both the MD and MBA degrees would be awarded. Candidates for the MBA/MD complete 36 semester hours of course work in the business school and all requirements for the MD.

Business Administration/Urban and Regional Planning MBA/MURP

This dual degree enables students to obtain both the Master of Urban and Regional Planning offered by the College of Architecture and Planning and the Master of Business Administration offered by the Business School upon completion of 78 semester hours. The dual degree program is composed of the core curricula in each program plus a set of electives jointly approved by the student's advisors.

Business/Business MS/MS

Students may concurrently pursue dual MS degrees in any two fields of business. The program consists of a minimum of 51 semester hours of core course work, which must be completed within a period of seven years and one semester. In addition, candidates for the dual degree must satisfy all common body of knowledge (CBK) and background requirements prescribed for each degree. Waivers may be approved for some of the CBK or background upon transcript evidence of equivalent undergraduate or graduate course work. For more information contact a graduate academic advisor, 303-315-8200.

Chemistry BS/MS

While students are completing a BS degree in chemistry, they may also complete some of the requirements for an MS degree in chemistry under the following guidelines:

- The student must apply and be accepted for participation in the BS/MS program prior to completion of the BS degree and be advised by both the undergraduate and graduate advisors.
- Up to 9 semester hours of graduate-level course work may be taken as an undergraduate and applied toward the MS degree. This course work may not be applied toward the BS degree or ACS certification requirements for the BS degree.
- Up to 3 semester hours of independent study (research) may be applied toward the graduate degree if that research is expanded and continued for a portion of the master's thesis research. This requires approval of the student's graduate research advisor in chemistry, the chemistry graduate program director and the CLAS associate dean for graduate studies.
- The chemistry department will waive the requirement for qualifying examinations in each area of chemistry for which the student has completed the undergraduate sequence of courses and laboratories at the Downtown Campus with grades of *B* or better for each course.
- The student must apply for and be admitted to the graduate program in chemistry beginning the semester immediately following completion of the BS degree in chemistry at the Downtown Campus.

This program allows undergraduate students who have begun their research as undergraduates to complete up to 12 semester hours (with approval of the graduate dean) toward the 30 semester hours required for a Plan I MS degree in chemistry while they are still completing their BS degree. This makes it possible for students to complete an MS degree in chemistry in only one year beyond the BS degree in chemistry. Students entering the program through the BS/MS program option must fulfill all of the requirements of the Plan I or Plan II graduate programs.

Criminal Justice BA/MCJ

The dual BA/MCJ program is designed to allow students to work concurrently toward the BA in criminal justice and the master in criminal justice (MCJ). Graduate credit hours earned while enrolled in the BA/MCJ program can be counted toward both the bachelor of arts and master of criminal justice. This program offers high-achieving students the opportunity to complete their undergraduate and graduate degrees in criminal justice in five years.

Admissions Requirements and Process

Interested students should contact their BA academic advisor as early as possible to ensure proper planning for the five year degree.

Eligibility Requirements

Both current CU Denver students and new transfer students are eligible to apply after meeting the following:

- Currently enrolled in the School of Public Affairs as a criminal justice major
- Completed the University of Colorado Denver's **undergraduate core curriculum**
- Completed 60 semester credit hours
- Completed the following 12 semester credit hours in criminal justice: CRJU 1000 Introduction to Criminal Justice, CRJU 2041 Crime Theory and Causes, CRJU 3100 Criminal Justice Research Methods, and CRJU 3150 Statistics for Criminal Justice (transfer criminal justice courses must have been approved and accepted toward the major).
- Minimum 3.0 cumulative GPA
- Minimum 3.5 cumulative GPA in criminal justice courses
- Completed or scheduled official GRE or LSAT exam

Application Process

Students must apply no later than the semester in which they first earn 20 credits toward the BACJ degree, most likely the second semester of their junior year. For full consideration, students must submit all application materials by Oct. 15 for admission to the following spring semester and by March 15 for admission to the fall semester. The following steps should help in the application process:

1. Plan ahead when scheduling courses through the junior year. All four of the required criminal justice courses listed above and all of the student's core education requirements must be completed by the end of the student's junior year.
2. At the beginning of the semester in which the student is applying to the program, the student should approach a criminal justice faculty member about writing a letter of recommendation. The student should also begin working on a personal statement of purpose. The following guidelines should help with writing the statement.
 - Length: 1 to 2 pages
 - The statement should describe:
 - Applicant's reasons for undertaking graduate study in criminal justice
 - Applicant's future career plans
 - Planned area of concentration within criminal justice
3. By Oct 15 of the fall semester or March 15 of the spring semester the student must submit the following items to the undergraduate coordinator:
 - Personal statement of purpose
 - One letter of recommendation from a faculty member
 - School of Public Affairs' BA/MCJ application form
 - Official GRE or LSAT scores

Admission Criteria

Admission to the BA/MCJ program is competitive. Applicants will be evaluated on the following:

1. Grade point average (overall and in criminal justice course work)
2. Grade trend (improving, consistent, or declining)
3. Total number of credit hours completed
4. Likelihood of success and persistence based from the Statement of Intent and Reference Letter
5. Official GRE or LSAT scores

Students who are not admitted to the BA/MCJ program are eligible to reapply after completing an additional 12 semester credit hours. *Students can apply and be considered for admission to the dual BACJ/MCJ program a maximum of two times.*

BA/MCJ Program Matriculation

Students must successfully complete (*B*, or better) a minimum of 3 semester credit hours of graduate criminal justice course work each semester following admission to the BA/MCJ program. A maximum of 18 graduate semester credits can be completed as a BA/MCJ student, for dual credit.

Students must maintain a minimum 3.0 cumulative grade point average for all course work and a 3.0 grade point average for courses in criminal justice.

The School of Public Affairs reserves the right to rescind a BA/MCJ student's admittance to the dual program *if at any point the students' grade point average falls below the requirements lists above.*

Tuition and Fees

Students will be assessed tuition and fees at the undergraduate rate until the bachelor of arts in criminal justice degree is conferred.

Students will assess tuition and fees at the graduate level upon formal acceptance to the master of criminal justice program.

Program Requirements

General BA/MCJ Degree Program Requirements

- 144 total semester credit hours successfully completed
- 37-38 semester credit hours in the general education core curriculum
- 46-48 semester credit hours in general electives
- 21 semester hours of undergraduate criminal justice course work
- 18 upper-level (3000 or higher) semester credit hours in criminal justice
- 45 total semester hours of upper-division course work (3000 and above)
- Minimum 3.0 CU cumulative grade point average in undergraduate criminal justice courses
- Full acceptance to the Graduate School and the master in criminal justice program
- Minimum 36 semester hours of graduate-level course work (5000 and above)
- Minimum of 30 hours of resident credit; 21 out of the last 30 hours in resident course work
- Minimum of a B (3.0) in each required core MCJ course
- Minimum of 3.0 CU cumulative grade point average in all graduate level courses
- Successful completion of master of criminal justice capstone or thesis
- Fulfillment of all college and major requirements

Degree Confirmation

Students are eligible to receive the BA in criminal justice degree once they have successfully completed 120 semester hours and all CU Denver undergraduate degree requirements. The MCJ will be conferred once the student has completed all requirements of the master of criminal justice degree.

Economics BA/Mathematics BS Dual Degree

A solid training in the mathematical and statistical sciences is fundamental to optimally prepare economics students for graduate school. A dual degree in economics and mathematics will substantially increase program quality and career prospects for our students, as well as enhance the reputation of the economics program at UCD. Similarly, a solid training in quantitative and qualitative economic principles offers significant benefits to mathematics majors who seek industrial and/or consulting positions.

Program Requirements

Students majoring in economics and mathematics for the BA/BS dual degree must declare such by the time they have completed 60 semester hours. No pass/fail grades may count toward the dual degree. The minimum grade for all economics classes taken at CU-Denver and applied toward the major is C- (one D- grade is allowed for one economics elective); a minimum GPA of 2.5 is required for all CU-Denver economics classes applied to the major. The minimum grade for all mathematics classes taken at CU-Denver and applied toward the major is C-; a minimum GPA of 2.25 is required for all CU-Denver mathematics classes applied to the major.

Economics Course Requirements

Required Economic Courses for the Dual-Degree

- ECON 2012 - Principles of Economics: Macroeconomics
- ECON 2022 - Principles of Economics: Microeconomics
- ECON 4071 - Intermediate Microeconomic Theory
- ECON 4081 - Intermediate Macroeconomic Theory
- ECON 4091 - History of Economic Thought
- ECON 4811 - Introduction to Econometrics

Total: 18 Hours

Economics Electives for the Dual-Degree

Any five 3-semester-hour courses taken in economics may satisfy this requirement, other than internships and independent studies (which require the approval of the department chair).

Note: ECON 3801 and ECON 3811 cannot be counted as electives.

One of the following mathematics courses can be counted as one economics elective (it may also be counted as one mathematics required course or one mathematics elective):

- MATH 3301 - Introduction to Operations Research I - Deterministic Systems
- MATH 3302 - Operations Research II
- MATH 4101 - Applied Statistics Using SAS and SPSS I
- MATH 4387 - Regression Analysis, Modeling and Time Series
- MATH 4390 - Game Theory
- MATH 4450 - Complex Variables
- MATH 4733 - Partial Differential Equations

- MATH 4830 - Applied Statistics
- MATH 5350 - Mathematical Theory of Interest

Total: 15 Hours

(four economic courses plus one mathematics course, or five economics courses)

Senior Exercise

Graduating seniors must submit the three best papers that the student wrote in any three separate courses taken in the economics department for the outcomes assessment of the economics program. The three papers should be handed in at one time in a folder to the economics office, before the first day of the month in which the student plans to graduate.

TOTAL ECONOMICS: 33 Hours

Mathematics Course Requirements

Required Core Courses for All Mathematic Majors

Lower-Division Courses

- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 2421 - Calculus III

Upper-Division Courses

- MATH 3000 - Introduction to Abstract Mathematics
- MATH 3191 - Applied Linear Algebra
- MATH 4310 - Introduction to Real Analysis I

Total: 21 Hours

Required Courses for the Dual-Degree

- MATH 3200 - Elementary Differential Equations
- MATH 4650 - Numerical Analysis I
- MATH 4779 - Math Clinic
- MATH 4810 - Probability
- MATH 4820 - Statistics

Applied/Modeling Elective (one course chosen from the following):

- MATH 3301 - Introduction to Operations Research I - Deterministic Systems
- MATH 3302 - Operations Research II
- MATH 4387 - Regression Analysis, Modeling and Time Series
- MATH 4409 - Applied Combinatorics
- MATH 4733 - Partial Differential Equations
- MATH 4791 - Continuous Modeling
- MATH 4792 - Probabilistic Modeling

- MATH 4793 - Discrete Math Modeling
- MATH 4794 - Optimization Modeling
- **Depth in Proof-Writing Elective** (one course chosen from the following):
- MATH 4110 - Theory of Numbers
- MATH 4140 - Introduction to Modern Algebra
- MATH 4201 - Topology
- MATH 4220 - Higher Geometry II
- MATH 4320 - Introduction to Real Analysis II
- MATH 4408 - Applied Graph Theory

Total: 21 Hours

Mathematics Electives for the Dual-Degree

Students must choose two approved mathematics electives (at least 3 semester hours) above 3000, excluding MATH 4012, 4013, 4014, and 4015.

One of the following economics courses can be counted as one mathematics elective (and can also be counted as one economics elective):

- ECON 4030 - Data Analysis with SAS
- ECON 4110 - Money and Banking
- ECON 4150 - Economic Forecasting
- ECON 4320 - Financial Economics
- ECON 4430 - Economic Growth
- ECON 4550 - Game Theory and Economic Applications
- ECON 4610 - Labor Economics
- ECON 4740 - Industrial Organization

Total: 6 Hours

(one mathematics course plus one economics course, or two mathematics courses)

Portfolio, Interview, Survey

In the semester of graduation, students must

- submit a portfolio consisting of two papers, typically written for previous courses, that demonstrate mathematical and writing proficiency;
- participate in an exit interview, which may be scheduled by the department administrative assistant;
- complete a senior survey, available from the department administrative assistant.

TOTAL MATHEMATICS: 48 Hours

Residence Requirements

In addition to the CLAS residence requirements, the economics department requires that:

- at least six of the major courses (18 semester hours), including at least three courses chosen from ECON 4071, 4081, 4091 and 4811, must be taken from economics faculty at CU Denver;
- once a student has enrolled at CU Denver, no courses in the major may be taken outside the economics department without permission from the undergraduate advisor.

Additionally, the mathematics department requires that

- at least 15 upper-division mathematics credits must be taken at CU Denver.

Economics MA/Applied Mathematics MS Dual Degree, with a focus in Applied Statistics

► Graduate School Rules apply to this program.

Admissions Advisor: Brian Duncan (brian.duncan@ucdenver.edu)

Schedule Advisor: Dan Rees (daniel.rees@ucdenver.edu)

The fields of mathematics and economics are inextricably linked. In economics, mathematics and statistics are used extensively in theory construction, tests of existing theories and discovery of regularities to inform new theories. Economics also gives mathematicians/statisticians new challenges, new outlets and new ideas to incorporate in mathematics. These complementarities have long been recognized and economics graduate students have always been advised to take advanced courses in statistics.

There are an increasing number of economics MA students wishing to obtain graduate training and a degree in statistics. Having an MA degree in economics and an MS degree in Statistics will make a student highly employable in the job market and provide them an edge in applying for elite PhD programs.

Admission Requirements

Deadlines for Application:	Fall	June 1
	Spring	December 1

Applicants must:

- Meet all general requirements of the Graduate School (including a 2.50 undergraduate grade-point average).
- Submit three letters of recommendation (at least two of your letters of recommendation should come from individuals who are familiar with your scholarly record)
- Submit two copies of official transcripts from all colleges attended
- Have completed 15 credit hours of undergraduate economics (including intermediate microeconomic theory and intermediate macroeconomic theory)
- Have completed courses in calculus and statistics
- All applicants, international and domestic, must submit GRE scores regardless of prior degrees, course work, or work experience. **The institution code for CU Denver is 4875.** Most students admitted to the MA program score 690 or above on the quantitative section of the GRE, but there is not a minimum GRE cutoff score.
- International students must submit TOEFL scores. The required minimum score is 203 (computer-based TOEFL), 75 (IBT-based TOEFL), 537 (paper-based TOEFL), or 6.5 (IELTS). **The institution code for CU Denver is 4875.**

The Department of Economics accepts late applications after these official deadlines. However, there is no guarantee that a late application will be processed in time for the start of the semester. Students are encouraged to apply well before the application deadline.

International students who apply after the June 1 or November 1 deadline may not have time to obtain a student visa. Being admitted to the MA program in economics does not guarantee that a student will receive a student visa in time for the start of the semester. International students who are admitted to the MA program, but fail to obtain a visa in time, may defer admission for up to one year. All questions about student visas should be directed to the Office of International Education.

Course Requirements

42 credit hours: 21 in Economics and 21 in Mathematics and Statistical Sciences

Core Courses

A grade of *B-* or better is required in all core courses, with a cumulative grade point average of *B* (3.0) or above. No course may be taken more than twice.

- ECON 5073 - Microeconomic Theory
- ECON 5083 - Macroeconomic Theory
- ECON 5813 - Econometrics I
- ECON 5823 - Econometrics II
- ECON 6053 - Seminar In Applied Economics
- ECON 6054 - Seminar In Applied Economics II
- MATH 5070 - Applied Analysis
- MATH 5718 - Applied Linear Algebra
- MATH 6330 - Workshop in Statistical Consulting
- MATH 6388 - Advanced Statistical Methods for Research
- MATH 7381 - Mathematical Statistics I
- MATH 7382 - Mathematical Statistics II
- ECON 6073 - Research Seminar

This course satisfies the final examination for MA in Economics thorough a research project and presentation.

A final examination in mathematics consisting of an oral presentation is required (no associated course or credit).

Core Total: 36 Hours

Electives

Take one additional three-credit-hour course in each of economics and mathematics, at the 5000-level or above.

Electives Total: 6 Hours

Dual Degree Total: 42 Hours

The following courses do not count toward any graduate degree in applied mathematics: MCKE 5000-5009, MCKE 5011, MATH 5010, MATH 5012-5017, MATH 5198 AND MATH 5250.

Economics MA/Finance MS Dual Degree

► Graduate School Rules apply to this program

Admissions Advisor: Brian Duncan (brian.duncan@ucdenver.edu)

Schedule Advisor: Dan Rees (daniel.rees@ucdenver.edu)

For students interested in combining the quantitative skills of an economics degree with the specific applications of a business degree, we offer an MA economics/MS finance dual degree. This 42-semester-hour program is offered jointly with the Business School. It is a "dual" degree, meaning that students who complete the program earn two master's degrees: MA in economics and MS in finance. Students must be admitted separately to both the MA program in economics and MS program in finance; they may apply to both programs at the same time or apply to the economics program first, and then to the finance program at the end of their first semester, or vice versa. Both programs must be completed in the same semester to take advantage of the dual degree program. Further information about this program can be obtained from either the Department of Economics or the Business School. Click here for admissions information for economics.

The dual degree program is intended to create highly-skilled research professionals with considerable econometric skill as well as familiarity with their chosen financial institutions. Given the similarity in course work within the two programs, there can be considerable time savings for the student. Essentially, the program allows students to complete the two programs that separately would require 60 hours of course work with 42 hours of combined course work.

Course Requirements

Core Courses

- ECON 5073 - Microeconomic Theory
- ECON 5083 - Macroeconomic Theory
- ECON 5803 - Mathematical Economics
- ECON 5813 - Econometrics I
- ECON 5823 - Econometrics II
- ECON 6073 - Research Seminar
- BUSN 6640 - Financial Management
- FNCE 6300 - Macroeconomics and Financial Markets
- FNCE 6330 - Investment Management Analysis

Total: 27 Hours

Electives

Four 6000-level finance elective courses: **12 semester hours**

One 5000-level or above economics elective course: **3 semester hours**

Total: 15 Hours

Dual Degree Total: 42 Hours

Economics MA/Public Administration MPA Dual Degree

► Graduate School Rules apply to this program

Admissions Advisor: Brian Duncan (brian.duncan@ucdenver.edu)

Schedule Advisor: Dan Rees (daniel.rees@ucdenver.edu)

The fields of public administration and economics are inextricably linked. Economists provide much of the theory and analytic foundation that administrators use to evaluate and implement policy. Given that the capital of the state of Colorado is in Denver, there is great need for administrators that fully understand methods of program evaluation and have the theoretical background needed to forecast how individuals and institutions will respond to new proposals. Similarly, good theory and practice must take into account how the proposals will be implemented and results interpreted. Both administrators and economists need to be engaged in constructive dialogue for either to be fully effective.

Students interested in completing the dual degree in economics and public administration *must apply separately* to each program, meet the admission requirements of each program, and *be accepted by* each program. If one program accepts a student for the dual degree but the other program does not, then the student may not graduate under the dual degree program. It is possible for students currently admitted to one program to learn about the dual degree and choose to apply after admission to either economics or the School of Public Affairs (SPA). Both degrees must be completed in the same semester to take advantage of the dual degree program.

Admission Requirements

Deadlines for Application:	Fall	June 1
	Spring	December 1

Applicants must:

- Meet all general requirements of the Graduate School (including a 2.50 undergraduate grade-point average).
- Submit three letters of recommendation (at least two of your letters of recommendation should come from individuals who are familiar with your scholarly record)
- Submit two copies of official transcripts from all colleges attended
- Have completed 15 credit hours of undergraduate economics (including intermediate microeconomic theory and intermediate macroeconomic theory)
- Have completed courses in calculus and statistics
- All applicants, international and domestic, must submit GRE scores regardless of prior degrees, course work, or work experience. **The institution code for CU Denver is 4875.** Most students admitted to the MA program score 690 or above on the quantitative section of the GRE, but there is not a minimum GRE cutoff score.

- International students must submit TOEFL scores. The required minimum score is 203 (computer-based TOEFL), 75 (IBT-based TOEFL), 537 (paper-based TOEFL), or 6.5 (IELTS). **The institution code for CU Denver is 4875.**

The Department of Economics accepts late applications after these official deadlines. However, there is no guarantee that a late application will be processed in time for the start of the semester. Students are encouraged to apply well before the application deadline.

International students who apply after the June 1 or November 1 deadline may not have time to obtain a student visa. Being admitted to the MA program in economics does not guarantee that a student will receive a student visa in time for the start of the semester. International students who are admitted to the MA program, but fail to obtain a visa in time, may defer admission for up to one year. All questions about student visas should be directed to the Office of International Education.

Course Requirements

The requirements for the dual degree in economics and public administration include completing 21 credit hours in ECON and 27 credit hours in public administration course work (48 total credit hours).

Core Courses

- ECON 5073 - Microeconomic Theory
- ECON 5083 - Macroeconomic Theory
- ECON 5803 - Mathematical Economics
- ECON 5813 - Econometrics I
- ECON 5823 - Econometrics II
- PUAD 5001 - Introduction to Public Administration and Public Service
- PUAD 5002 - Organizational Management and Behavior
- PUAD 5003 - Research and Analytic Methods
- -OR- PUAD 5004 - Economics and Public Finance
- PUAD 5005 - The Policy Process and Democracy
- PUAD 5006 - Leadership and Professional Ethics
- ECON 6073 - Research Seminar
- -OR- PUAD 5361 - Capstone Seminar

Core Total: 33 Hours

Electives

If the student takes ECON 6073, then 3 hours of elective credits must come from economics and 12 hours from public administration.

If the student takes PUAD 5361, then 6 hours of elective credits must come from economics and 9 hours from public administration.

All elective courses must be at the 5000 level and above.

Electives Total: 15 Hours

Dual Degree Total: 48 Hours

Finance/Economics MS/MA

Students may concurrently pursue an MA in Economics offered by the College of Liberal Arts and Sciences and the MS in Finance offered by the Business School. Students must complete 27 semester hours of a combination core, 15 semester hours of combination electives and 3 semester hours of a 5000- or 6000-level economics elective. Students apply to each program separately and admission into one of the programs does not guarantee admissions into the second program.

Political Science MA / Master of Business Administration (MBA) Dual Degree

► Graduate School Rules apply to this program.

In the 21st century, the fields of business administration and political science intersect, in that sustainable business development requires an understanding of the political environment, while political theory and practice must address the role of the business community in economic development. Providing students with both the business foundation and the political knowledge enhances their ability to succeed in our ever-changing political world.

The UCD Master of Arts in Political Science (MA) degree offers an in-depth understanding of the political environment, locally, nationally and globally, emphasizing the development of academic and practical skills in key areas of the discipline, and centering on the major fields of American politics, comparative politics, international relations, political theory and public policy. The UCD Master of Business Administration (MBA) degree provides a strong foundation in business knowledge in such areas as organizing teams, developing marketing plans, using data analysis and technology in decision making, economics, financial management and strategic planning. The MBA develops skills required for competent and responsible administration of an enterprise viewed in its entirety, within its social, political and economic environment.

The Dual Master's Degree in Political Science (MA) and Business Administration (MBA) is designed for students whose interests overlap business and politics or business and international affairs. This program is jointly sponsored by the Department of Political Science of the College of Liberal Arts and Sciences and the Business School. This program enables students to simultaneously earn an MA in Political Science with an MBA.

The dual degree program provides a more comprehensive education to the next generation of professionals in the non-profit sector, corporate arena and governmental organizations. Dual degree students are able to complete both degree programs in less time, and with fewer total credit hours (66 for both), than if both degrees were pursued separately ($48+33 = 81$). The program keeps the core of each program intact, including some electives from both programs, and enables students to choose two additional electives from either business or political science to best suit their career and personal goals. Furthermore, the interactions between the students enrich the students in both programs, as well as the organizations that employ them.

Admission Requirements

Students must apply separately to, meet the admission requirements of, and be accepted by each program. It is possible for students currently admitted to one program to learn about the dual degree and choose to apply after admission to the other program.

GPA Requirements

Students must maintain a cumulative GPA of 3.0 or higher across all courses that are applied to the dual degree. Any political science course in which a student receives a final grade lower than *B-* cannot be counted toward the total credits for the dual degree. Any business course in which a student receives a final grade lower than *C* cannot be counted toward the total credits for the dual degree. All graduate courses will be included in the cumulative GPA.

Transfer Credits

No more than 9 semester hours of business credits from an AACSB Business School with a grade of *B* or better and no more than 6 semester hours of political science credits may be transferred into this dual degree program. The Business School will evaluate transfer hours in business and the Political Science Department will evaluate transfer hours in political science.

Graduation

Students must complete all the requirements for both programs before they apply to graduate, and must apply to graduate in the same term for both programs.

Degree Requirements

MBA Core (30 Hours)

- BUSN 6520 - Managing Individuals and Teams
- BUSN 6530 - Data Analysis for Managers
- BUSN 6540 - Legal and Ethical Environment of Business
- BUSN 6550 - Analyzing and Interpreting Accounting Information
- BUSN 6560 - Marketing Management
- BUSN 6610 - Information Systems Management and Strategy
- BUSN 6620 - Applied Economics for Managers
- BUSN 6630 - Management of Operations
- BUSN 6640 - Financial Management
- BUSN 6710 - Strategic Management

International Elective (3 Hours)

Any course numbered 6000 or higher with the INTB prefix

OR ENTP 6826 - International Entrepreneurship

OR any graduate-level business course that is cross-listed with an INTB prefix. Travel study offered by the Business School will also apply.

Political Science Core (18-21 Hours)

- PSCI 5000 - State of the Discipline
- PSCI 5468 - Research Methods in Political Science
 - Graduate Seminar in American Politics subfield
 - Graduate Seminar in Comparative or International Politics subfield
 - Graduate Seminar in Political Theory subfield
- PSCI 5950 - Master's Thesis (6 credits)
- OR
- PSCI 5960 - Master's Project (3 credits)

Political Science Electives (6-9 Hours)

PSCI graduate seminars [must complete 6 hours if thesis, or 9 hours if project (from Political Science Core)]

Free Electives (6 Hours)

Courses must be from either the Business School or Political Science department, meeting the descriptions below. A combination of both is also acceptable.

Business Free Electives: Any course numbered 6800 or higher with a BUSN prefix or any course numbered 6000 or higher with a prefix of ACCT, DSCI, ENTP, FNCE, HLTH, INTB, ISMG, MGMT OR MKTG.

Political Science Electives: *Any course numbered 5000 or higher with a PSCI prefix.*

Public Administration MPA/JD

The School of Public Affairs and the University of Colorado at Boulder School of Law jointly sponsor a dual degree program leading to the simultaneous granting of the master of public administration (MPA) and juris doctor (JD) degrees. The program may be of particular interest to students who wish to practice law within the public sector, obtain a senior administrative post, represent public-sector clients, represent private-sector clients in transactions with government agencies and institutions and/or develop scholarly expertise in the relationship between law and public administration.

Interested persons must separately apply to and be admitted by both SPA and the School of Law. Upon admission, students may begin full-time study at either SPA or the School of Law; however, law study must be initiated no later than the beginning of the second year of enrollment in the program, and the first year of law study must be taken in its entirety and exclusive of nonlaw course work.

Through the choice of electives, students may develop a limited substantive specialization within the study of law and public administration. The dual degree program is structured to allow for 12 semester hours from the law school to be accepted as electives in the 36-semester-hour MPA program, and 12 semester hours from SPA to be accepted into the law school's 89-semester-hour JD program. Students are thus simultaneously awarded both degrees with a cumulative total of 101 semester hours; the program therefore allows students to complete all dual degree requirements in approximately four years of full-time study. Students without prior public-sector work experience will be required to complete an internship in an appropriate governmental institution or closely related nonprofit organization.

Public Administration/Criminal Justice MPA/MCJ

The fields of public administration and criminal justice are closely connected. While the MPA is a generalist degree designed to prepare graduates for a variety of positions in administration and policy analysis, criminal justice studies prepare graduates to work in public service organizations within the substantive policy area. By providing an opportunity for students to complete both a generalist master's degree as well as a specialist master's degree, graduates will be equipped not only with administrative skills applicable to a number of public service settings, but also will have deep knowledge of work that pertains to criminal justice settings.

Admission

Students pursuing the joint degree program must apply separately to each of the programs and be admitted to each of the programs. If one program accepts student for the dual degree but the other program does not, then the student will not be accepted for the dual degree. It is possible for students currently admitted to one program to learn about the dual degree and choose to apply after admission to the other.

The MPA and MCJ Program Directors serve as advisors for this program. Interested applicants should consult one of the Program Directors before applying.

Course Requirements

Students enrolled in the dual degree program must complete a minimum of 24 credit hours in each of the two programs (not counting Internship or Field Study if required). Because each program requires 36 (not counting Internship or Field Study) credit hours, the student will be able to complete 48 hours and earn two degrees. This means that the student can earn two degrees by completing 66% of the credit hours that would be required if the student were pursuing each degree separately.

Interested students should contact the School of Public Affairs directly for specific information on course sequencing and requirements.

Public Administration/Economics MPA/MA

The fields of public administration and economics are inextricably linked. Economists provide much of the theory and analytic foundation that administrators use to evaluate and implement policy. Given that the capitol of Colorado is in Denver, there is great need for administrators that fully understand methods of program evaluation and have the theoretical background needed to forecast how individuals and institutions will respond to new proposals. Similarly, good theory and practice must take into account how the proposals will be implemented and results interpreted. Both administrators and economists need to be engaged in constructive dialogue for either to be fully effective.

Therefore the Department of Economics of the College of Liberal Arts and Sciences and the School of Public Affairs jointly sponsor a dual degree program. This program enables students to simultaneously earn an MA degree in economics with a master of public administration (MPA).

The dual degree program provides students to opportunity to take the core of both programs and choose electives that suit their career and personal goals best. Electives in one program are allowed to count as an elective in the other. The net result is that while both degrees separately require 66 hours, the dual degree program provides a more comprehensive and effective education in 48 hours or 73 percent of the dual degree total.

Degree Requirements

Admission into both programs

Students must apply separately to each program, meet the admission requirements of each program and be accepted by each program. If one program accepts a student for the dual degree but the other program does not, then the student will not be accepted for the dual degree. It is possible for students currently admitted to one program to learn about the dual degree and choose to apply after admission to either economics or SPA.

Other policies

Minimum Grade for Graduation

Students must maintain a GPA of 3.0 or higher across all courses that are applied to the dual degree. Students who fail to maintain a GPA of 3.00 will be placed on probation for a semester, after which they may be dropped from the dual degree program if the GPA is not increased to 3.0 or above. Additionally, any core course in which a student receives a final grade lower than B- cannot be counted toward the total credits required for the dual degree; in such a case, the student must retake the course.

Capstone Advising

All students are required to complete a capstone paper and obtain the signatures of three graduate faculty. Every dual degree student, regardless of the capstone course they choose (ECON 6073 or PUAD 5361) must select a committee composed of faculty from both programs.

Course Credit Transfers from Other Universities

No more than 6 hours may be transferred, and both SPA and economics program directors must approve any transfers.

Sample Plan of Study for the MPA/MA Economics

Total: 48 semester hours with 21 in economics and 27 in public administration

Core

(33 semester hours)

A grade of B- or better is required in all core courses, with a B average overall. No public administration course may be taken a third time.

- ECON 5073 - Microeconomic Theory
 - ECON 5083 - Macroeconomic Theory
 - ECON 5803 - Mathematical Economics
 - ECON 5813 - Econometrics I
 - ECON 5823 - Econometrics II
 - PUAD 5001 - Introduction to Public Administration and Public Service
 - PUAD 5002 - Organizational Management and Behavior
 - PUAD 5003 - Research and Analytic Methods
 - or
 - PUAD 5004 - Economics and Public Finance
 - PUAD 5005 - The Policy Process and Democracy
 - PUAD 5006 - Leadership and Professional Ethics
 - ECON 6073 - Research Seminar
 - or
 - PUAD 5361 - Capstone Seminar
- To be completed after all other core courses or with instructor and advisor consent.

Electives

(15 semester hours)

If the student takes PUAD 5361, then they are required to take 6 semester hours of economics electives and 9 semester hours of electives from SPA labeled 5000 or above.

If the student takes ECON 6073, then they are required to take 3 semester hours of economics electives and 12 semester hours of electives from SPA labeled 5000 or above.

Public Administration/Public Health MPA/MPH

Applying for the Program

Students need to apply to the School of Public Health with a separate application. Students must be admitted to both programs to participate in the dual degree.

Course Requirements

To complete the dual degree, students take all the core courses in each program, 9 elective credits from the School of Public Affairs, 9 elective credits from the School of Public Health, and the School of Public Health's capstone course requirements. Total credits required: 60 semester credit hours. For more information, see the course map provided on the School of Public Affairs website; spa.ucdenver.edu.

When to Enroll

Students should indicate intention to complete the dual degree upon application to the School of Public Affairs and simultaneously complete the application for the School of Public Health. SPA does not have a limit on the number of students who can enroll. Students already enrolled in the School of Public Affairs student may begin the SPH application right away (see the SPH for application deadlines), while taking MPA classes. It is best to get started on the application process right away, so that advising matches graduation goals.

Advising

Once admitted to the dual degree program, students have an advisor from each school.

Public Administration/Urban and Regional Planning MPA/MURP

Background and Purpose

Public administration and urban and regional planning have many aspects in common. To provide students with an excellent education through understanding of both professions, the School of Public Affairs and the College of Architecture and Planning have developed a dual degree program. Students can obtain both master of public administration (MPA) and master of urban and regional planning (MURP) degrees with a minimum of 63 semester hours, as compared to a total of 87 semester hours to complete both degrees independently.

To be eligible for the dual MPA/MURP degree program, students must be admitted to each of the two schools under their respective admission procedures and standards and indicate an intention to pursue the dual degree. Students will take all the core courses and the capstone required for an MPA, plus the core and concentration requirements necessary for the MURP.

Students in each school must apply to the other school before completing 18 hours in their respective programs. Upon admission to both schools, students will be assigned an advisor in each school to work out a specific degree plan.

Core and Elective Requirements

Core Courses (42 semester hours)

MURP

- URPL 5000 - Planning History and Theory
- URPL 6220 - Advanced Research Techniques
- URPL 6215 - Analyzing the Built Environment
- URPL 5020 - Planning Law and Institutions
- URPL 6630 - Planning Studio I
- URPL 6000 - Planning Project Studio

Total: 18 Hours

MPA

- PUAD 5001 - Introduction to Public Administration and Public Service
- PUAD 5002 - Organizational Management and Behavior
- PUAD 5004 - Economics and Public Finance
- PUAD 5005 - The Policy Process and Democracy
- PUAD 5006 - Leadership and Professional Ethics

Total: 15 Hours

Take one of two

- PUAD 5003 - Research and Analytic Methods
- URPL 5040 - Planning Methods

Total: 3 Hours**Additional Course Work (21 semester hours)****MURP**

12 hours if URPL 5510 elected, or 15 hours if PUAD 5003 elected. Courses are to be selected with MURP advisor's approval.

- URPL 5040 - Planning Methods
- PUAD 5003 - Research and Analytic Methods

Total: 12-15 Hours**MPA**

6 hours if PUAD 5003 elected, or 9 hours if URPL 5510 elected.

- PUAD 5003 - Research and Analytic Methods
- URPL 5040 - Planning Methods

Total: 6-9 Hours**Practicum**

- PUAD 5361 - Capstone Seminar (3 hours required)

Total: 3 Hours (required)**Electives**

Take one of the following or another option with MPA advisor's approval (3 hours):

- PUAD 5250 - Intergovernmental Management
- PUAD 5410 - Administrative Law
- PUAD 5440 - Negotiation and Conflict Resolution
- PUAD 5502 - Public Financial Management and Policy
- PUAD 5503 - Governmental Budgeting
- PUAD 5540 - Organization Development
- PUAD 5625 - Local Government Management
- PUAD 5626 - Local Government Politics and Policy

- PUAD 5631 - Seminar in Environmental Politics and Policy
- PUAD 5632 - Seminar in Environmental Management

Total: 3 Hours

Public Affairs BA/MPA

The BA/MPA degree program offered by the College of Liberal Arts and Sciences and the School of Public Affairs provides students the opportunity to complete both a bachelor's degree and master's degree in five years rather than the usual six years. The program combines undergraduate general education and major studies with a specialized curriculum in public affairs and strives to develop intellectual and professional skills in a coordinated manner. The five year BA/MPA program decreases the time and number of semester hours required to earn both degrees by allowing students to count graduate level courses in the School of Public Affairs toward the bachelor's degree requirements. The program is designed to give students an opportunity to prepare for professional positions and advancement with federal, state or local governments, nonprofits or private sector firms concerned or involved with public affairs.

Admissions Requirements and Recommendations

Interested students should contact their CLAS advisor and the School of Public Affairs' MPA director as early as possible to ensure proper planning for the five year degree. To qualify, students must have a 3.5 or higher GPA in CLAS.

Students may apply to the program during the semester in which they will successfully complete 90 semester hours, and should have most of their general education and major requirements completed by this time. Students must complete all the required MPA application materials for the School of Public Affairs.

Program Requirements

Students must fulfill all the requirements for graduation for CLAS:

- Total of 120 hours (includes hours in public affairs)
- 30 hours in the core curriculum
- 30-48 hours to satisfy major requirements
- Writing proficiency (1 – 7 hours)
- Mathematics proficiency (0 – 3 hours)
- Level III foreign language (0 – 13 hours)
- It is highly recommended that students complete a course in American government, statistics and economics before applying to the MPA program

Students must maintain a 3.5 GPA in CLAS course work.

Students may complete a maximum of 18 semester hours of SPA graduate course work while classified as an undergraduate student.

Students must fulfill all the requirements for graduation from SPA:

- Total of 36–39 semester hours in public affairs
- Six core courses (PUAD 5001 – PUAD 5006)
- Five elective courses at the graduate level (5000 and 6000 level courses)
- Nine of the 15 elective semester hours must be PUAD courses
- An internship (3 hours) is required from those who do not have significant work experience in the field

- Successful completion of the capstone course taken in a semester AFTER all core courses are completed. A thesis option is available. Interested students should contact their SPA faculty advisor.

Students must maintain a 3.0 or higher GPA in public affairs course work.

Program Options

BA/MPA students may choose from any CLAS major.

BA/MPA students may choose to do a general MPA or select a MPA concentration in local government, nonprofit management, environmental policy, emergency management and homeland security or domestic violence.

Degree Confirmation

Students are eligible to receive a bachelor's degree once they have successfully completed 120 semester hours and all CLAS requirements. The BA/MPA will be conferred once the student has completed all requirements of the master of public administration degree, including at least 36 hours of graduate level course work.

Doctoral Programs

Applied Mathematics, PhD

► Graduate School Rules apply to this program.

Program Requirements

The Department of Mathematical and Statistical Sciences offers a PhD in applied mathematics. The degree is designed to give candidates a contemporary, comprehensive education in applied mathematics and to provide research opportunities in the special fields of graph theory, combinatorics, optimization, applied probability, computational mathematics, and applied statistics.

There are six phases of the PhD program. A candidate must fulfill course requirements, pass the preliminary examinations, establish a PhD committee, meet the academic residency requirement, pass the comprehensive examination and write and defend a dissertation.

- Students must complete 42 semester hours of non-thesis course work at the graduate level (up to 30 hours of this course work may be transferred in, including courses taken as part of a master's degree). In addition, 30 hours of dissertation credit must be taken. The following courses are required as part of the formal course work: the math clinic and three readings courses (1 semester hour each). Students must also satisfy a **breadth requirement** by completing a total of six graduate math courses from among several areas of mathematics, with no more than three of these courses from any one area. A 3.25 GPA must be maintained throughout all course work. [The following MATH courses will NOT count toward a graduate degree: MATH 5000-5009, 5012, 5017, 5198 and 5250.]

- The preliminary examinations are designed to determine that students who intend to pursue the PhD program are qualified to do so. These four-hour written examinations are in the areas of applied analysis and applied linear algebra. Students must pass these exams within two years of entering the program. Exception: students admitted with prerequisite deficiencies must pass these exams within three years.
- Six semesters of full-time scholarly work are required, as specified in the rules of the Graduate School. All students are strongly advised to spend at least one year doing full-time course work or research with no outside employment.
- The comprehensive examination is taken after completion of the preliminary exams, completion of at least three semesters of residency, and upon completion of all nonthesis coursework. The exam is designed to determine mastery of graduate-level mathematics and the ability to embark on dissertation research. It consists of a six-hour written examination and an oral follow-up examination. Students must pass the comprehensive exam within 4 years of admission. Within six months after passing the comprehensive examination, the candidate must present a dissertation proposal to their dissertation committee.
- Each student must write and defend a dissertation containing original contributions and evidence of significant scholarship. The dissertation defense is public and must be given before an examining committee approved by the Graduate School.

For more detailed information about the applied mathematics PhD, see the Mathematical & Statistical Sciences Graduate Handbook (June 2012).

Bioengineering PhD

► Graduate School Rules apply to this program.

Doctor of Philosophy (PhD) Degree Program

For students with undergraduate or graduate degree in life sciences, engineering, computer science, or relevant field. Degree completion in 3-5 years with highly individualized training pathway and multidisciplinary research dissertation. More information is available on the Department of Bioengineering website.

The department also offers an MD/PhD degree program for students already enrolled or accepted into the Medical Scientist Training Program (MSTP) in the CU School of Medicine. Degree completion in 7-8 years with highly individualized training pathway and multidisciplinary research dissertation.

Civil Engineering PhD

► Graduate School Rules apply to this program

The PhD degree in civil engineering is offered through a coordinated program with University of Colorado Boulder.

Specialty Areas for Degrees:

- Environmental and Sustainability Engineering
- Geotechnical Engineering
- Hydrologic and Hydraulic Engineering
- Structural Engineering
- Transportation Engineering
- Civil Engineering Systems

NOTE: The multidisciplinary engineering and applied science PhD is also offered through the Department of Civil Engineering.

What is civil engineering systems?

The doctoral program in civil engineering systems has different rules than the five other traditional doctoral tracks in order to facilitate more interdisciplinary research. This doctoral track can be the degree that would follow a master's of engineering.

Additional Doctoral Admissions Requirements

In addition to the admissions requirements listed for master's students, doctoral applicants need to have the support of a faculty advisor before they are admitted. Once doctoral students are approved by the graduate admissions committee, their application must be reviewed again by the Department of Civil, Environmental and Architectural Engineering at CU Boulder as the programs are jointly administered. Prospective PhD students should contact the Department of Civil Engineering at CU Denver to inquire about application requirements and to obtain the "Rules and Policies for the Coordinated PhD Program."

Requests for applications for graduate study in civil engineering should be addressed to

CU Denver Department of Civil Engineering
Campus Box 113
P.O. Box 173364
Denver, CO 80217-3364

Computer Science and Information Systems PhD

► [Graduate School Rules](#) apply to this program

Program co-directors: Gita Alaghband (CSE) and Mike Mannino (Business School)

Website: <http://engineering.ucdenver.edu/CSISPhD>

The Department of Computer Science and Engineering (CSE) and the Business School offer a joint doctor of philosophy degree program in computer science and information systems (CSIS). The program targets students with a master's-level education in either computer science, information systems or related disciplines, although highly qualified students with undergraduate degrees may also apply. The program provides research training that combines computer science and information systems along with strong industry interaction. Students completing the joint PhD program may qualify for academic positions, industrial research positions and senior consulting positions. The specific goals of the program complement these general goals:

- create a pool of graduates with CSIS research training who are qualified for academic and nonacademic careers
- meet student demand for advanced training in CSIS with accommodations for full-time and part-time students
- promote interdisciplinary research between CSE and the Business School
- enhance technology transfer between CSIS academic units and Front Range technology businesses through joint research, student internships, faculty externships and committee participation

Advisor

Upon entering the program, each student chooses an advisor to provide mentoring and guidance throughout the program and work with the student to prepare a program of study. Requests to change advisors must be approved by the program co-directors, and this happens in very rare circumstances.

Doctoral Committee

The advisor and four other members form a doctoral committee. To foster interdisciplinary work, you may have your doctoral research co-supervised by two faculty members. At least one co-supervisor must be a full-time current graduate faculty member in the CSE department or Business School. The committee must contain at least one faculty member from the CSE department and at least one from the Business School. At least one committee member is from outside of the CSE department and the information systems faculty.

Program Components

Plan of Study

A list of course work and other requirements for the degree should be prepared with the advisor and then submitted to the co-directors for approval. The successful completion of all work indicated on the plan of study is an important prerequisite for the conferring of the degree. A plan of study should be submitted for approval by the end of the first semester of the program. The current plan of study should be updated before the beginning of the second year of the program and submitted for reapproval by the co-directors.

Preliminary Exam

According to Graduate School Rules, students are required to demonstrate their basic knowledge and preparation toward more advanced doctoral level work. For more information visit the [PhD CSIS website](#).

Comprehensive Exam

Students will submit a paper to fulfill the graduate school's comprehensive exam requirement. The paper should describe an area of research including literature review, problem definition, and possible methodologies/models to study a significant problem in computer science or information systems. The paper will be evaluated by a committee of three faculty members. An oral presentation of the paper will be open to the entire CSIS faculty. The committee may adopt additional guidelines to evaluate the paper and presentation. According to graduate school rules, the comprehensive exam must be completed by the end of the fourth year in the program. In addition to these requirements, the comprehensive exam must meet the other graduate school requirements.

Dissertation Proposal

A student's doctoral committee can require a dissertation proposal after the student completes the comprehensive exam. The doctoral committee may consider the quality and level of detail in the comprehensive paper and other factors in determining the need for a student to prepare a dissertation proposal. If the doctoral committee requires a dissertation proposal, the student must prepare a proposal that will be evaluated by the doctoral committee.

Dissertation Completion

Once the dissertation proposal is approved, each student prepares and submits a dissertation. The dissertation is defended before the doctoral committee in a public meeting. Final approval for the dissertation is given by a vote of the dissertation committee after the public defense.

Graduation

Upon completion of all degree requirements including the dissertation defense, the student receives the degree of doctor of philosophy. Students applying through CSE receive the PhD from the College of Engineering and Applied Science, while students applying through information systems receive the PhD from the Business School.

Computer Science and Information Systems PhD (Business School)

► Graduate School Rules apply to this program.

Program Components

Plan of Study

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Dissertation Proposal

As the first phase of the dissertation, each student should prepare a proposal that will be evaluated by the doctoral committee. A proposal should be ready for review at least one semester before the expected completion date of the degree. The proposal is submitted for review and approval by the doctoral committee. An oral presentation of the dissertation proposal before the doctoral committee is required for approval. An approved proposal is then submitted to the co-directors of the program for final approval.

University-Level Instructional Training

During the program, each student will obtain training for university-level instruction. This requirement can be fulfilled by working with a faculty member as a teaching assistant, attending university-level teacher training or teaching a university-level class. Students who plan a university career will be encouraged to teach one or more courses and participate in training. When teaching or working as a teaching assistant, a student will be compensated according to standard university salaries.

Dissertation Completion

Following completion of the approval of the dissertation proposal, each student prepares and then submits a dissertation. The dissertation is defended before the doctoral committee in a public meeting. Final approval for the dissertation is given by a vote of the dissertation committee after the public defense of the dissertation.

Graduation

Upon completion of all degree requirements, including the dissertation defense, the student receives the degree of doctor of philosophy. Students applying through the CSE receive the PhD from the College of Engineering and Applied Science, while students applying through the information systems program receive the PhD from the Business School.

Design and Planning PhD

► Graduate School Rules apply to this program

Program Director: Osman Attmann

Telephone: 303-315-0032

Email: o.attmann@ucdenver.edu

Overview

The PhD in Design and Planning at the University of Colorado is a research-oriented degree offered by the College of Architecture and Planning (CAP) at the University of Colorado Denver. Initiated in 1997, the program is dedicated to the education of future architects, landscape architects, and urban planners who are intellectual leaders, and who have a critical understanding of the social, political, and global conditions that influence their profession.

It is the intent of the program to prepare students to excel in the planning and design of built environments through the incorporation of intellectual, analytical, and integrative aspects of the involved professions. Within this context, students and faculty seek to creatively shape the built environment and understand it in relation to institutional, political, economic, social, and natural environments.

Admission to the program is competitive and based on merit and available funded projects in the program. Excellent academic performance, references, and GRE scores are prerequisites. In the first two years of residence, students take courses to satisfy the requirements of a major and a minor field of study and the core requirement of the program, as well as additional electives.

The minimum residency requirement is four semesters, not including summer semesters. The first major step in their progress through the program is the completion of the course work required by the candidate's selected major and minor fields of study. The second major step is the completion of the comprehensive examinations in the selected major and minor fields of study.

After satisfying program requirements, students move on to preparing a thesis topic and research proposal which is presented and defended in a public event. With the successful defense of the thesis topic and research proposal, students are admitted to candidacy. Finally, the completed thesis is defended in a public examination involving external examiners in addition to the members of the committee. Upon successful completion of the thesis defense the program recommends the awarding of the PhD degree.

One of the strengths of the College of Architecture and Planning PhD program is that students can take advantage of resources in all departments and fields in the College and elsewhere in the university. The program is a unique, joint program in which students may choose to focus in Architecture, Planning, or Landscape Architecture, or work in any combination of these disciplines. Interdisciplinary study and cross-disciplinary inquiry occur in a congenial work environment, drawing upon a wealth of faculty and resources in a range of campus units. The main mission of the program is to provide a foundation for scholarship in planning and design

drawing from scientific, critical, historical, and creative modes of inquiry.

The PhD degree in Planning and Design is appropriate for those seeking careers in research and teaching or in roles in government or professional consultation, all of which require a research specialization. So far, over 40 graduates of the program have gone on to faculty positions at universities in the United States and elsewhere, post-doctoral work, and into private consulting, non-profit organizations, and the federal government.

Admission Requirements

Prerequisites

Applicants admitted to the PhD Program normally will have completed the requirements for the Master of Architecture, Master of Planning, Master of Landscape Architecture, or a related master's degree program. Students from allied fields are also encouraged to apply. Field specialization and background are open. However, students will preferably have completed a program in planning or a design-related field, such as:

- Architecture
- Architectural Engineering
- City and Regional Planning
- Landscape Architecture
- Urban Design
- Environmental Studies

GPA, GRE and TOEFL Scores

Consistent with the University requirements, applications are evaluated based on Grade Point Average (GPA) scores, Graduate Record of Examination (GRE) scores, and the Test of English as a Foreign Language (TOEFL) scores (where applicable). All exams must have been taken within a year before applying to the program:

- Academic achievement as evidenced by an undergraduate grade point average of 3.0 (on a 4.0 scale) or better, and a graduate grade point average of 3.5 or better.
- The program looks for GRE scores of 158 or better on each of verbal and quantitative reasoning tests and for a minimum of a 4.00 score on analytical writing, unless a student's record documents substantial professional or scholarly achievement as evidence of exceptional ability.
- Applicants whose native language is not English must take either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) exam, or have a graduate degree from a university in the U.S. or another English-speaking country. The minimum TOEFL score required for acceptance by the University of Colorado at Denver is 80 or higher on the TOEFL (sub-scores of 20 in Reading, Listening, and Speaking, and 24 in Writing) or 6.5 on the IELTS (sub-scores of 5.5 in each area). However, the Ph.D. program typically does not accept a student with a score lower than 85 on the TOEFL and 6.8 on the IELTS.

Application Checklist

The following documents must be submitted before an application will be considered:

- Application Forms - Apply online!
- Application Fee
- Three Letters of Recommendation
- Examples of previous research and written works
- Official transcripts from all previously attended institutions of higher learning
- Statement of Personal and Professional Goals
- Scores of Test of English as a Foreign Language (TOEFL) for non-U.S. residents whose native language is other than English
- Graduate Record Examination (GRE) score
- Financial Statement (for non-U.S. residents/citizens)

Program Requirements

Overview

Successful completion of the PhD program requires fulfilling course requirements, passing the comprehensive examinations, preparing and defending a dissertation proposal, and undertaking research, writing and defending a dissertation. This is a multi-year process that involves a close mentoring relationship with the student's advisor. The Checklist that follows summarizes the major requirements of the program.

A student's program of study must include:

- at least 12 credit hours of PhD Program core classes,
- 15 credit hours of study in a Major field, and
- 9 hours in a Minor field.

The Major and Minor requirements are minimums; the particular field of study may require additional work.

Based on these and other requirements, students shall complete a minimum of 36 credit hours in their Major and Minor fields, and PhD Program core requirements prior to advancement to candidacy. This is the equivalent of four semesters (two years) of coursework.

Students must maintain a 3.0 GPA in all their coursework. A grade of less than B in any PhD Program requirement (Core, Major and Minor) will not be accepted as meeting those requirements. For Program Core courses, the student must retake the course. A Program Core course may only be retaken once. The student will be terminated from the program if a grade less than B is received more than once in a PhD Program Core course.

In addition, students must pass a comprehensive exam as well as write and defend a dissertation proposal and dissertation.

Residency and Enrollment Requirements

The minimum enrollment requirement at CU Denver for doctoral students is six semesters of full time scholarly work beyond the attainment of a bachelor's degree. Two semesters of enrollment credit may be allowed for an earned Master's degree from another institution however, at least four semesters of credit must be earned for work performed while enrolled at CU Denver.

The doctoral program requires a minimum of two years of residency (not fewer than four semesters enrolled in a minimum of six credit hours each, excluding summer) devoted to coursework and other preparation for advancement to doctoral candidacy status. Ordinarily, research for the dissertation will also be completed while in residence. After that time, special arrangements can be made with the CAP PhD Committee if substantial work needs to be performed elsewhere.

Students must complete the comprehensive examinations and dissertation proposal within four years from the beginning of their first semester in which they are enrolled as a PhD student at University of Colorado Denver. In addition, University of Colorado Denver requires that all degree requirements be completed within eight years of matriculation.

Active Status

To remain actively enrolled, students must register for six credit hours or more each academic semester (excluding summer) until they become a doctoral candidate. Students who are not so registered are automatically withdrawn from the University of Colorado Denver and must apply for readmission to the program. The readmission decision will depend on the student's academic record and progress toward the degree.

Doctoral students must register for a minimum of one hour of dissertation credit in the term of graduation. If all requirements for graduation, including submission of the final approved dissertation, have been completed prior to the last day of registration, and the student was registered for the preceding term, the student may apply for a waiver of the enrollment requirement.

Advising and Committees

Overview

Each student entering the program will have a PhD advisor. Students wishing to change their Advisor should do so during their first year. All appointments of advisors must be approved by the PhD Program Director. Students wishing to change their Advisor after the first year must petition the PhD Program Director for approval.

The Advisor

The advisor guides the student through the completion of the course requirements, the preparation for the comprehensive examinations, the dissertation proposal, and the dissertation. The advisor must have a doctoral degree and be a tenured/tenure-track member of the CAP PhD program.

Dissertation Advisory Committee

The Dissertation Advisory Committee provides guidance for the investigated dissertation topic, comprehensive examination, dissertation, and the final dissertation examination.

This committee includes at least three faculty members: the Advisor and two additional members. The members must have a PhD degree and at least one member must be a full-time faculty of CAP. For the comprehensive examination, at least one member represents the student's major field of study, and at least one member represents the minor field of study.

Membership of this committee may change if the student's interests and needs change. Any changes should be developed in consultation with the student's advisor, and must be approved by the PhD Program Director.

Final Dissertation Examination Committee

This committee consists of a minimum of five members, including the Advisor, the Dissertation Advisory Committee for the dissertation, and at least two additional external members, with at least one from outside the University of Colorado Denver. External members must be full time faculty members in a degree-granting institution and must have PhD degrees.

Special Circumstances

If the advisor leaves the faculty of CAP before the comprehensive exam and/or thesis topic is approved, the PhD Program Director will work with the student to identify a new advisor for the committee.

If the advisor leaves the faculty of CAP after the comprehensive exam and/or thesis topic is approved, and both the advisor and the student wish to continue in the advising relationship, there will be no change of advisor. The advisor may be appointed as adjunct faculty in the School, in order to recognize his or her continuing role, with approval of the PhD Program Director.

If a member of the dissertation committee other than the advisor is unable to continue in this role, for any reason, the advisor will work with the student to identify a new member for the committee. Upon accepting to serve in this role, the new member of the committee must sign on the dissertation topic and dissertation proposal documents as they were previously approved.

Typical Course of Study

FIRST YEAR

Students develop their degree plan, take six credit hours of the required Core Curriculum, complete additional courses in their specialty area, and any prerequisite courses.

SECOND YEAR

Students take the remaining core courses, continue to take electives in their minor and specialty areas, begin literature surveys and reviews, and prepare for their comprehensive exam.

THIRD YEAR

Students complete their specialization papers, prepare a dissertation proposal, complete literature review, and take the comprehensive exam.

FOURTH/FIFTH YEAR

Fourth and fifth years are spent researching and writing the dissertation.

PhD Degree Time Limit: Eight Year Completion Requirement

University of Colorado Denver requires that doctoral students, whether enrolled full time or part time, must complete all degree requirements within eight years of matriculation. Students who fail to complete the degree in this eight-year period are subject to termination from the Graduate School upon the recommendation of the program director and concurrence of the Dean. For a student to continue beyond the time limit, the program director must petition the Dean for an extension and include:

1. reasons why the program faculty believes the student should be allowed to continue in the program and
2. an anticipated timeline for completion of the degree.

Approved leaves of absence do not automatically extend the time limits for earning a degree, but they may be used as a reason to request an extension if needed.

For more information on the PhD in Design and Planning, visit the College of Architecture and Planning website.

Educational Studies and Research PhD

► Graduate School Rules apply to this program

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Website: www.ucdenver.edu/education/doctorate

The PhD in educational studies and research links an intensive research-based course of study with a content area in order to prepare candidates to assume positions in institutions of higher education or research-based organizations. Successful applicants will be paired with a faculty mentor with whom the student will engage in research and developing content expertise over time. The preparation model will require students to be available for about 20 hours per week in research and to enroll in 2-3 courses per semester.

Students complete a plan of study that includes at least 45 semester hours of course work (including all required core courses) and 30 semester hours of dissertation and labs. PhD students are expected to be full-time, typically working (research assistantships, teaching assignments, internships, grants, etc.) at the university while completing their course work. This allows for induction to the university research and teaching culture.

Overview of Course Work:

Foundations: Equity and Diversity, Learning, Epistemology, and Teaching in Higher Education - 4 Courses; 12 Semester Hours

Research Methods – 6 Courses; 18 Semester Hours

Concentration Area – 5 Courses; 15 Semester Hours**

Dissertation: 30 semester hours total (6-9 research lab credits and 21-24 dissertation credits)

**Doctoral students will complete a series of courses/experiences in a specified concentration area. Content domains that align to prospective positions in institutions of higher education will be the basis for concentration areas. We define a concentration area as a line of courses that leads to increasing subject matter expertise. Concentration areas are designed to help students focus on a defined discipline or content area in preparation for professional roles as researchers and faculty members. Following, we list the current areas of concentration in which students can be admitted. These areas may change over time as they are tied to faculty research and externally funded grant projects; prospective students will find updated information regarding current availability on the School of Education & Human Development website.

- **Math Education.** Students and faculty in this concentration area focus on teacher learning and professional development experiences. Specifically, projects investigate the ways that particular interventions used in professional development for mathematics teachers impacts their content knowledge and pedagogical practices in their classrooms. Work in this area is framed by a situative perspective of learning and incorporates mixed

methods to answer questions around the ways particular interventions support teacher and student learning. Video data is prominent in both the design of professional development interventions as well as a major data source for analyses. Analytic methods vary based on the research question and grain size.

- **Science Education.** The goal of this area is to prepare students to explore, understand, and think critically about the nature of science and science education from a largely research-oriented perspective. Students may elect to focus on environmental science education as an area of specialization within this concentration area through electives and discipline- specific research agendas.
- **Urban Ecologies.** This concentration area brings together several faculty members in interdisciplinary study of education in urban ecologies. Participating faculty members are aligned with the interdisciplinary concentration area as a whole, rather than specific threads or foci. The philosophical assumptions underlying work in this concentration area are: 1) Cultural groups are not monolithic, 2) Urban life and learning, including Pre-K-20 education, complex phenomena that benefit from the multiple lenses offered by multi-disciplinarity, and 3) Trans-nationalism characterizes the cultural experiences and political/economic realities of many communities in cities and contributes to the hybrid identities of residents. These assumptions contribute to a conceptual frame for investigating diversity within the city that is not focused on specific groups and is concerned with the influence of globalization on communities in general within the city. Experiences of and issues confronting different cultural and ethno-linguistic groups will be the key content of this concentration area.
- **Assessment and Measurement.** The goal of this concentration area is to introduce students to the theory, methods, practices and problems in the development and technical evaluation of assessments in education at both large-scale and classroom assessment levels, considering issues of diverse learners, including English Language Learners and students with special educational needs. The arena of assessment is playing an increasingly important part in P-20 education. This ranges from issues of accountability, student achievement, growth- models, common/benchmark assessments to classroom assessment. In addition to the need for researchers in this area, there are needs for individuals with advanced skills in developing and evaluating the technical quality of instruments in education for different purposes, from developing and implementing surveys to collecting information about teachers to implementing and analyzing achievement assessments to make decisions about the efficacy of educational programs. These individuals need to know how to analyze the information gathered from these instruments and make appropriate decisions based on the information collected. They need to understand the limitations of assessment instruments based on the evaluation on their technical quality.
- **Administrative Leadership and Policy.** This concentration serves as key area for those concerned about leadership in schools and a key focus for research by scholars in higher education. A crucial assumption that underlies this concentration area is that school leadership makes the difference in how schools succeed in improving learning outcomes for all students, but we are only beginning to scratch the surface in understanding why leadership is successful when it is, what the interactions are between

effective leadership and effective teaching, and their collective impact on learning outcomes at all levels in schools.

Engineering and Applied Science PhD

[Graduate School Rules](#) apply to this program

The multidisciplinary Engineering and Applied Science Doctor of Philosophy degree program is offered by the College of Engineering and Applied Science and consists of a primary and secondary concentration. Applicants apply and enter the program through one of four departments—called the host department, which is chosen based on the applicant's intended primary concentration of study. The four departments that serve as host departments are:

- Civil Engineering
- Computer Science and Engineering
- Electrical Engineering
- Mechanical Engineering

Each host department offers several concentrations. A list of concentrations can be found on each [department's website](#).

The required secondary concentration can be chosen from any remaining department within the college, including the Department of Bioengineering. The secondary concentration may also be chosen from another CU Denver school or college. A student chooses his/her secondary concentration with the help of a faculty advisor after entering the program.

Requirements for Admission

Requirements for admission to the Engineering and Applied Science PhD program can be found under the Degree Programs link on each host department's website.

- [Civil Engineering](#)
- [Computer Science and Engineering](#)
- [Electrical Engineering](#)
- [Mechanical Engineering](#)

Degree Requirements

The minimum degree requirements consist of 30 semester hours of course work in the primary and secondary areas of concentration, as well as 30 semester hours of research/dissertation credit. Each candidate for the degree is expected to take a preliminary examination by the end of the second year. After successful completion of this exam, the student is required to take the comprehensive examination and the doctoral dissertation defense examination. Additional requirements are outlined in the Rules and Regulations document that each student signs after being admitted to the program. Each student must also satisfy the degree requirements of the CU Denver Graduate School.

Health and Behavioral Sciences PhD

► Graduate School Rules apply to this program

Requirements for Admission

A master's or equivalent graduate degree is required for admission to the PhD program. In addition, we encourage prior graduate training in the areas noted below. Students applying without prerequisites may be admitted, but will be required to complete appropriate courses before being permitted to complete the core curriculum.

In addition to the general admission requirements of the Graduate School, the specific admission requirements for the PhD in health and behavioral sciences are as follows:

1. Knowledge from prior course work or vocational experience at the equivalent of college senior or graduate level in each of the following areas.

Social or behavioral sciences (15 semester hours minimum): knowledge of essential facts and concepts concerning the relationship among individuals and society, social organization, individual psychology and the relationship among culture, belief and behavior. This could be satisfied by course work in psychology, sociology and anthropology.

Human biology or physiology (6 semester hours minimum): familiarity with the functioning of the human body in health and disease states, including an understanding of cellular and organ system processes; an appreciation of evolutionary theory and the mechanisms by which evolution operates on both cellular and population levels; and an understanding of the interplay between the evolution of disease and host response. This could be satisfied by course work in human biology, physiology, pathophysiology or biological anthropology.

Statistics (3 semester hours minimum): prior course work and current familiarity with statistics including probability theory, parametric and nonparametric methods and acquaintance with basic multivariate techniques.

Epidemiology (3 semester hours minimum): prior course work at the advanced undergraduate or graduate level with the basic concepts and methods of epidemiology, including measures of risk, mortality, distribution of disease, role of bias and confounders and study design.

2. Demonstrated academic excellence as evidenced by an undergraduate GPA of 3.25 (out of a possible 4.0 points) or better, a graduate GPA of 3.5 or better, and scores in the top 30th percentile (averaged) of the GRE. Admission to the program is highly competitive; minimum GPAs and GRE scores for acceptance in any given year may be higher than the minimum levels indicated here.

The applicability of a student's prior course work will be decided by the program executive committee after reviewing the student's transcript and additional materials. If the student does not have the requisite educational background or GPA, the student may be admitted on a conditional or provisional basis and additional course work required in accordance with Graduate School Rules.

Prospective students should not be dissuaded from applying to the program if they do not meet all of the requirements for admission. In some cases, employment experience may be counted toward meeting a requirement. In other cases, students may be admitted conditionally upon their completion of a list of prerequisite courses that will be established at the time of admission. Students should be sure to address this issue in completing the graduate application by specifying the academic and vocational experience they possess that meets, in part or full, the admission requirements described above.

MASTER'S LEVEL PREPARATION FOR THE DOCTORAL PROGRAM IN HEALTH AND BEHAVIORAL SCIENCES

The program does not currently offer master's-level training in HBSC. Instead, we urge interested applicants to pursue relevant master's degree training in one of the social, behavioral or health sciences disciplines. In addition, we work closely with two master's programs at CU Denver. These are the concentrations in medical anthropology within the anthropology MA program offered by the anthropology department and the master of public health offered by the Colorado School of Public Health. Contact the respective programs for more information on these degree options and our program for how their requirements articulate with those for the health and behavioral sciences PhD.

TO APPLY FOR ADMISSION

At the Denver campus, all graduate applications are now submitted electronically. To begin the application process, go to the online admissions website. If you have any difficulties, call the program assistant at 303-556-4300. The program admits students only for the fall semester, which typically begins in mid- to late August. The deadline for the receipt of all application materials is **February 15** for admission the following August.

Applicants should invest considerable thought and effort in preparing their application. For instance, in the essay (Part II, question six) applicants should provide information on: (a) their academic training and any employment related to public health or health care; (b) their experiences with inter- and multidisciplinary perspectives, and (c) how they envision using their doctoral degree to improve the health status of human populations and individuals. Students should also indicate the kinds of research *foci* that interest them the most.

In addition to the required recommendation form, letters of recommendation are required from at least three individuals in a position to judge the applicant's ability to complete the program. Recommenders may be employers, colleagues or professors; however, the applicant should be sure that the letters address the quality of and aptitude for academic work as well as personal characteristics and qualities.

Financial Aid

There are four kinds of financial aid available: graduate student stipends/fellowships; tuition assistance; research assistantship positions funded by grants to specific program faculty; and the regular package of financial aid (primarily loans) available through the financial aid office.

Newly admitted, out-of-state and students demonstrating outstanding scholastic achievement receive priority when assigning departmental sources of funding. Students interested in research

assistantships should contact the individual faculty member with whom they wish to work regarding potential assistantship positions.

All other aid should be requested through the CU Denver Financial Aid Office, North Classroom, 1030, Campus Box 125, P.O. Box 173364, Denver, CO 80217-3364. Telephone: 303-556-2886.

Program Requirements

There are three dimensions to the required curriculum:

- a. A core curriculum that focuses on problem-oriented, interdisciplinary approaches to theory and method
- b. Elective course work intended to provide the student with a solid base from which to launch the dissertation research
- c. Dissertation research and writing

The curriculum is subject to change. What appears below is intended to give students a general idea of the extent, shape and content of the curriculum. Students should check with the program office for up-to-date information on specific course requirements and scheduling.

The Core Curriculum

The core curriculum should be completed by students by the end of their second year of full-time study. It consists of the following series of courses which, together, constitute 29 semester hours:

I. Health and Behavioral Sciences Colloquium

Each fall, the HBSC program will organize a series of presentations by scholars working in the health and behavioral sciences. The presentations provide students with the most current science and theory in the field. Required of all first- and second-year students, who must take at least two times.

- HBSC 7001 - Colloquium Series in the Health and Behavioral Sciences

Total: 2 Hours

II. Theoretical Perspectives in the Health and Behavioral Sciences

This series is designed to give students a thorough background in how the principles of the social and behavioral sciences have been applied to health issues. Topics include: the interplay between structure and agency in creating and maintaining health; social epidemiology; critical theory and social determinants of health; issues affecting Western biomedicine and public health systems; diffusion of healthy behavioral change among populations; social construction of health and illness; health policy and bioethics; social networks; and stress.

- HBSC 7011 - Theoretical Perspectives in Health and Behavioral Science I
- HBSC 7021 - Theory in Health and Behavioral Sciences
- HBSC 7071 - Social and Behavioral Determinants of Health and Disease

Total: 9 Hours

III. Human Ecology and Environmental Adaptation

This course will emphasize the biological/physiological dimensions of human health and disease.

- HBSC 7031 - Human Ecology and Environmental Adaptation

Total: 3 Hours

IV. Research Design and Methods in the Health and Behavioral Sciences

Three HBSC core research design and methods courses, plus one additional advanced methods course of student's choosing. This series covers the philosophy of science and the structure of scientific inquiry, procedures for hypothesis-testing, quantitative and qualitative methodological strategies commonly employed in the field, epidemiology and program evaluation. Students must further develop specialized methodological skills by completing an independent study (HBSC 6840) or taking one additional course in advanced epidemiology, advanced biostatistics, health economics, survey research design or qualitative methods and data analysis. This requirement will be tailored specifically to the student's particular interests by his/her advisor.

- HBSC 7041 - Research Design and Methods in the Health and Behavioral Sciences I
 - HBSC 7051 - Qualitative Research Design and Methods
 - HBSC 7061 - Quantitative Methods in the Health and Behavioral Sciences
- One elective course in advanced methods: **3 semester hours**

Total: 12 Hours

V. Applications of the Health and Behavioral Sciences

This course offers students the opportunity to focus on individual research interests with guidance from faculty and input from peers.

- HBSC 7111 - Applications of the Health and Behavioral Sciences

Total: 3 Hours

TOTAL CORE: 29 Hours

Elective Courses

Elective course work together constitutes 6 semester hours, which can be drawn from the large number of offerings in the health and behavioral sciences at CU Denver. Students will be expected to fulfill the necessary prerequisites for taking these courses, and final authority as to whether a student may enroll in the course will rest with the department in which the course is offered.

TOTAL ELECTIVES: 6 Hours

Doctoral Dissertation Research

The doctoral dissertation research topic is chosen by the student. The student is expected to define a research question in health and behavioral science, identify the research strategy to be used for answering the question, conduct the research required and document the project in the form of a doctoral dissertation. The student will be guided in this process by a doctoral dissertation advisor and the additional members who comprise the student's doctoral dissertation committee (see below). A minimum of 30 semester hours of dissertation work is required. Students must register for a minimum of 5 dissertation credits each semester of their dissertation work. Students may not take more than a year's leave of absence or fail to enroll for semester hours more than three semesters before they are dropped from the program.

Advisors

Upon admission to the program, each student will be assigned a first-year advisor. The student or the faculty will then choose the faculty advisor who will guide the student through the core and elective course work. The faculty advisor may or may not be the chair of the student's dissertation committee. The student selects his or her chair and a minimum of three additional committee members who oversee the student's comprehensive examination and dissertation research.

Formal Review

A formal review of each student's progress will be undertaken at the end of each year of study. Students who are deemed not to be making satisfactory progress will be informed in writing as to the nature and final result of the review before the end of June.

The Dissertation Prospectus and the Comprehensive Examination

Before a student advances to candidacy, she/he must complete a dissertation prospectus and defend it successfully in the context of an oral comprehensive examination. The dissertation prospectus is a complete description of the question or hypothesis that the student wishes to research for the dissertation project, the research design and study techniques and an assessment of the proposed project's contribution to the field. It will include a comprehensive review of the relevant literature. If the student chooses to undertake research in a particular ethnic or cultural community, she/he must also demonstrate sufficient understanding of that setting including adequate knowledge of the language. This prospectus must be approved by the student's advisor prior to scheduling the comprehensive examination.

The comprehensive examination will be an oral format based in part on, but not restricted to, the material presented in the dissertation prospectus. This exam *must* take place before the

student's advancement to candidacy and will typically occur by the end of the third year of study. A committee comprising the chair and a minimum of three faculty members will supervise the completion of the dissertation prospectus. This committee will conduct the oral examination and will recommend to the executive committee by a majority vote whether or not the student should be advanced to candidacy.

The Doctoral Dissertation and Final Exam

After advancement to candidacy, the student in consultation with his or her advisor will appoint a dissertation committee comprising the chair and a minimum of three faculty members. The chair and composition of the committee will be subject to approval by the program executive committee. The chair and two other members must have been present at the student's comprehensive examination and will be responsible for overseeing the research and writing of the doctoral dissertation. The committee will review drafts of the dissertation and, when the dissertation is completed to its satisfaction, will conduct the final exam, which will be based on the doctoral dissertation and related materials. The final examination will be open to the public.

Dissertation Total: 30 Hours minimum

Integrative and Systems Biology, PhD

- Graduate School Rules apply to this program.

Director for PhD Program: John Freed

Office: Science, 4097

Telephone: 303-315-2143

E-mail: john.freed@ucdenver.edu

Website: clas.ucdenver.edu/biology/grad.html

Requirements for Admission

Applicants must hold a baccalaureate degree from an accredited college or university, awarded within the preceding ten years. Applicants whose biology degree was awarded more than 10 years prior to entrance to the CU Denver program will be expected to retake or show competence in core areas. Successful applicants generally have earned an overall GPA of 3.2 or better. Students entering the PhD program in Integrative and Systems Biology must have completed a year of general biology course work. Supplementary course work or reading programs may be designed for some students admitted to the program to provide background information of sufficient depth for the program curriculum. The general GRE, transcripts and letters of recommendation are required of all applicants, as well as a completed application to the program.

The PhD program has two tracks: integrative biology and systems biology. For both tracks, applicants to the PhD program should declare an area of specialization that aligns with the research focus of a PhD program faculty member. Faculty expertise can be found under PhD program faculty on the Department of Integrative Biology website. Students are obligated to contact prospective faculty advisors in advance of application to the program to determine if openings are available within the faculty member's research program.

Application deadline is January 15 for both domestic US students and international students. Applications submitted after the deadline date will not be considered. Application to the PhD program is through CU Denver Admissions.

Degree Requirements

All course work taken within the Department of Integrative Biology and applied toward the degree must be at the 5000 level or above. Core courses required for the program include: principles of biological research, pedagogy, problems in integrative and systems biology, biostatistics, directed reading/grant writing, 3 electives, journal club, research, and graduate seminar. A course plan is developed jointly by the student and faculty advisor and is approved by the student's graduate committee. Students are required to maintain a minimum 3.0 GPA throughout the program. In addition to regular meetings throughout the semester, all students must meet with their faculty advisor at the beginning of each semester to determine course schedules and upcoming deadlines.

In year one of the program, students are required to take a qualifying written exam covering first year course work. In year two of the program, all students are required to form a five-person dissertation committee. A formal research proposal (written and oral) is defended in the second year of the program. In the third year of the program, students take a comprehensive exam, which comprises an original and state-of-field grant proposal followed by an oral defense. In the final year of the program, a dissertation is completed and defended in an open forum. Degrees will not be awarded solely because students finish required course work and achieve other milestones, including passing comprehensive examinations. Graduation is contingent upon students completing a dissertation that is based on original, publishable research, submitting for publication in peer-reviewed journals, and demonstration by the student of a comprehensive understanding of the literature surrounding the chosen dissertation topic.

Stipends for students are provided for all years of the program.

Per Graduate School rules, the minimum enrollment requirement at CU Denver for doctoral students is six (6) semesters of full time scholarly work beyond the attainment of a bachelor's degree. Two (2) semesters of enrollment credit may be allowed for an earned master's degree from another institution; however, at least four (4) semesters of credit must be earned for work performed while enrolled at CU Denver. PhD students are expected to participate in the life of the program by attending colloquia, seminars, orientations and other program activities and by spending time on campus interacting with other students and faculty outside of normal class hours. Students should discuss with their advisors how to fulfill the spirit of this requirement.

Required Courses

- BIOL 6002 - Biology Skills Sets - Pedagogy
- BIOL 5705 - Principles of Biological Research
- BIOL 6010 - Topics in Integrative and Systems Biology
- BIOL 6764 - Biological Data Analysis
- BIOL 6655 - Seminar

Leadership for Educational Equity EdD

- Graduate School Rules apply to this program

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Website: www.ucdenver.edu/education/doctorate

Program Overview

The goal of the doctor of education (EdD) leadership for educational equity program is to prepare future leaders for social justice and equity in P-20 and community-based education contexts who can effectively translate research into practice, influence policy, use data effectively in decision making and organize individuals and groups to address challenges collaboratively and successfully.

The EdD is a practice-based, doctoral level program for professional leadership in P-20 or community-based educational contexts. The EdD will prepare leaders within the profession to address complex educational challenges by combining decision-focused analytic and research skills with a broad-based understanding of systems anchored in principles of social justice and equity and access to public education.

This program reflects a cohort model. Courses will generally be offered in weekend, hybrid (part face-to-face, part online), online and/or summer intensive formats. Students follow their cohort in taking the prescribed course work and experiences for three consecutive years.

Course Work – 69 Semester Hours

Equity and Diversity Core (9 hours)

Leadership Core (12 hours)

Research Methods Core (12 hours)

Concentration Area Core (9 hours)

Culminating Experiences:

Concentration Area Internship (one, 6 credit experience)

Dissertation Courses and Independent Hours (21 credits)

Concentration Areas

Executive Leadership: designed to deepen individuals' skills in policy analysis, development and research; personnel management; finance; accountability systems and evaluation; and community relations. Support individuals who hold or seek to move into senior management

positions inside school districts, community colleges, higher education policy or community-based education organizations. Roles may include that of a director, deputy, superintendent or president.

Instructional Leadership: designed for individuals who want to hone their skills through inquiry in the areas of adult learning, professional development, teaching, assessment and accountability, technology and policy analysis and application. This concentration area targets professionals who hold or seek to move into positions such as teacher leaders, coaches/mentors, program coordinators, curriculum directors or instructors at teaching colleges or community colleges.

Psychology, Clinical Health Psychology PhD

► Graduate School Rules apply to this program

Objectives of the Program

A primary focus of clinical health psychology is the development of effective disease prevention interventions for populations at high risk for medical problems. A second focus of clinical health psychology is the development of strategies to help individuals who are already ill to manage their disease, increase their ability to collaborate with medical professionals and improve their coping skills. Students in this program will be trained to work within the community to use psychological tools and techniques to promote health, prevent and treat illness and improve the health care system. In addition to course work, students acquire expertise in research by completing a second-year project and doctoral dissertation, and demonstrate competence in clinical assessment and intervention through several applied practicum experiences, a clinical competency project and a pre-doctoral internship. Students can complete the program in five years and have up to eight years to complete the program according to Graduate School Rules.

Admissions

The application deadline is December 15 for the following fall. You are responsible for making sure all materials are in on time. We do not consider late applications. International students should be sure to submit all materials at least two weeks before this deadline (by December 1) so that they arrive at our department on time. Below is condensed information; see the department website for complete information.

Admission Requirements:

- BA or BS from an accredited college or university, with a minimum GPA of 3.5 based on all college course work.
- Undergraduate courses in: introductory psychology, psychological statistics, research methods and abnormal psychology. Additional courses in psychology are highly desirable; our admissions committee will also look favorably upon courses in the biological and physical sciences.
- Two official transcripts from each college and university attended.
- Graduate Record Exam (GRE): The GRE General Test (verbal, quantitative, analytical writing) is required. Most students in the program had a combined verbal and quantitative score of at least 1100 on the old GRE scoring system. The GRE should be taken at least six weeks before the December 15 deadline so that the scores arrive on time.
- Three letters of recommendation, at least two of which must be academic references. Applicants provide contact information for their references in the online application. Those individuals are automatically contacted electronically and asked to upload their recommendations directly to your application file.
- The online Graduate Application, including your resume/vita and personal statement.
- Application fee of \$50 (\$75 for international students).

Financial Information

The University of Colorado Denver administers various forms of financial aid for graduate students: fellowships, scholarships and a number of awards from outside agencies. See the Office of Financial Aid for further information. Additionally, the psychology department offers teaching assistantships each year in such courses as introductory psychology, statistics, research methods and human development. Although we do not guarantee TA positions, we generally have been able to offer positions to most of our interested students.

Contingent upon the availability of grant money, faculty may also offer part-time research assistantships to qualified students. The typical RA position involves data collection and analysis, library research, etc. Some computer and statistical skills are usually required. RA positions are less available than TA positions, and they may arise on very short notice.

In-state tuition waivers and additional stipend monies may be available for doctoral students. We do guarantee to pay a full stipend, usually in the form of an assistantship, plus tuition for the first year. We will make every effort to do so for four years.

Please note: Neither teaching nor research assistantships confer in-state tuition status.

Degree Requirements

Course Work:

The program requires approximately eight semesters of full-time course work and clinical practica, followed by a year-long internship. Students must maintain a 3.0 grade point average, and no grade below a *B* will count toward the requirements. Students must complete their doctoral dissertations prior to beginning their internship in the 5th year. Students can complete the program in five years and have up to eight years to complete the program, according to Graduate School Rules.

Master's Thesis:

The program has a provision for achieving a master's degree *en route* to obtaining the PhD. In addition to taking PSYC 8200, Teaching Skills Seminar, an MA is required for students to independently teach a course. During their time in the program, students' funding will likely require them to independently teach a course. Students must complete a master's thesis, an empirical research project that makes a significant contribution to the field. Although the thesis must address the student's own original question, the use of archival data and pilot studies is encouraged for this project.

Clinical Practica:

A minimum of 500 face-to-face intervention and assessment hours and 1200 total practicum hours [face-to-face intervention and assessment hours, plus supervision, plus support hours as defined by the Association of Psychology Postdoctoral and Internship Centers (APPIC)] are required in preparation for application to pre-doctoral internships. A minimum of 50% of required practica is conducted in medical settings, including rotations in the department's own Psychological Services Center and in external facilities such as outpatient diabetes clinics, cancer clinics, OB/GYN, HIV/AIDS, end-stage renal disease, pain, and cardiovascular clinics, and in-patient psychiatric facilities. Students are able to select practica based on their personal and

professional interests. All field placements are approved in advance by the Coordinator of Clinical Activities.

Demonstration of Clinical Competency:

Students entering their fourth year of the program must demonstrate their clinical competency by completing the Comprehensive Clinical Competency Evaluation (CCCE). The CCCE is designed to facilitate student demonstration of clinical competence at the developmental level of readiness for application to clinical internship. This evaluation is designed to assess the developmentally appropriate broad and general clinical competencies in clinical psychology, and does not necessarily evaluate clinical health psychology competencies *per se*. The CCE comprises three sequential components conducted in phases:

1. Applied clinical diagnosis, conceptualization and assessment/treatment plan for a standardized patient.
2. Intervention therapy session with a standardized patient.
3. Oral defense with faculty committee.

Dissertation:

Students must complete a dissertation that involves original empirical work and is distinct from other research projects and publications. The dissertation proposal must be completed and defended prior to making application for the pre-doctoral internship. Students must have a dissertation committee composed of four members of the graduate faculty. When the dissertation is completed to the satisfaction of the primary advisor, the student must orally defend the dissertation to the committee.

Internship:

Students must complete a 12-month, full-time pre-doctoral clinical internship, preferably at an APA-accredited site. This internship is required of all clinical psychologists and is the capstone of clinical training in the doctoral program.

Courses

- PSYC 6950 - Master's Thesis
- PSYC 7144 - Advanced Cognition and Emotion
- PSYC 7205 - Advanced Developmental Psychology
- PSYC 7220 - Advanced Biological Bases of Behavior
- PSYC 7262 - Health Psychology I
- PSYC 7350 - Psychotherapy I
- PSYC 7360 - Psychotherapy II
- PSYC 7400 - Child Assessment
- PSYC 7410 - Personality Assessment
- PSYC 7420 - Cognitive Assessment
- PSYC 7485 - Diversity in Clinical Psychology
- PSYC 7490 - Topics in Health Psychology Summer Lecture Series
- PSYC 7500 - Advanced Psychopathology
- PSYC 7511 - Historical and Philosophical Foundations of Psychology

- PSYC 7520 - Experimental Psychopathology
- PSYC 7700 - Clinical Research Methods
- PSYC 7710 - Multivariate Statistics
- PSYC 7713 - Advanced Statistics
- PSYC 7730 - Ethics and Professional Issues in Psychology
- PSYC 7830 - Clinical Interviewing
- PSYC 7910 - Clinical Practicum
- PSYC 8100 - Clinical Behavioral Medicine
- PSYC 8200 - Teaching Skills Workshop
- PSYC 8262 - Health Psychology II
- PSYC 8501 - Primary Care Psychology
- PSYC 8502 - Cardiovascular Health Psychology
- PSYC 8503 - Group Interventions in Health Psychology
- PSYC 8550 - Advanced Social Psychology
- PSYC 8910 - Clinical Health Practicum
- PSYC 8938 - Pre-Doctoral Internship
- PSYC 8990 - Doctoral Dissertation

Public Affairs PhD

► Graduate School Rules apply to this program

Program Director: Tanya Heikkila, PhD

Faculty

Professors:

Kathleen Beatty, PhD, Washington State University
Lloyd Burton, PhD, University of California, Berkeley
Mary Dodge, PhD, University of California, Irvine
Angela Gover, PhD, University of Maryland
Mary Guy, PhD, University of South Carolina
Richard Stillman, PhD, Syracuse University
Paul Stretesky, PhD, Florida State University
Paul Teske, PhD, Princeton University

Associate Professors:

Brian Gerber, PhD, Stony Brook University
Jody Fitzpatrick, PhD, University of Texas, Austin
Allan Wallis, PhD, City University Graduate Center
Christine Martell, PhD, Indiana University
Jessica Sowa, PhD, Syracuse University
Tanya Heikkila, PhD, University of Arizona
Callie Rennison, PhD, University of Houston
Chris Weible, PhD, University of California-Davis

Assistant Professors:

Todd Ely, New York University
Danielle M. Varda, PhD, University of Colorado Denver
Lonnie Schaible, PhD, Washington State University
Benoy Jacob, PhD, University of Illinois at Chicago

Research Professor:

Stephen Block, PhD, University of Colorado

Clinical Professor:

Malcolm Goggin, PhD, Stanford University

Professor Emeritus:

John Buechner, PhD, University of Michigan

The School of Public Affairs offers a program of advanced graduate study leading to the doctor of philosophy in public affairs. The program, based on the Denver campus, permits elective work to be taken on any campus of the university if it is part of the approved program of study or degree plan.

The doctoral program was developed to meet the need for people with mastery in the scholarly theory, concepts and research skills of public administration, public policy and public management, and who are able to use such skills in careers of research, teaching and analysis of public-sector challenges. The PhD is designed to prepare students for leadership responsibilities in academia, research and public policy analysis. Accordingly, the PhD stresses the development of theoretical, conceptual and methodological knowledge in public administration, policy and management.

Participants

The doctoral program is primarily designed to serve (1) people who desire to further the field of public policy and public and nonprofit management through teaching and research; (2) scholar-practitioners working in government, private-sector organizations concerned with government and nonprofit organizations; and (3) policy analysts in government, private-sector organizations concerned with government and nonprofit organizations.

Time Required for PhD Degree

The PhD program requires an intense commitment. Most courses and seminars are offered during the late afternoon, in the evenings or on an intensive basis. (Some electives are offered online, but core courses are not.) Anyone starting the PhD program with a master's degree in public administration can expect to take at least three but no more than eight years to complete all of the requirements for the PhD. Any student entering the program with no prior graduate work in public administration, public policy or management should expect additional course requirements.

PhD Admission Requirements

Admission to the program is based on the personal and professional qualifications of the applicant. It is desirable that an applicant have a master's degree in public administration or a closely related field before undertaking doctoral work. Applicants should have a 3.5 GPA or above in master-level course work, as well as GRE scores that are, at a minimum, above the 50th percentile ranking in both the quantitative and verbal sections. Successful applicants will also show the potential for productive careers in scholarship, research and analysis.

Meeting the minimum thresholds listed above does not assure admission. In unusual cases, students who fail to meet the thresholds may be admitted if high academic skills are demonstrated in other ways.

PhD Application Process

Applicants must submit the following items to the SPA office before they can be formally considered for admission. The application deadline is February 1; admitted students will begin in the fall semester.

- application forms
- official transcripts (two copies) from all degree granting institutions
- GRE scores (no more than five years old)
- a resume or vita
- three letters of reference attesting to a candidate's academic promise
- a well-articulated statement of purpose demonstrating an understanding of the research orientation of the degree and a strong motivation and determination to successfully complete the program

In addition, students may also submit samples of research reports or publications.

Applicants whose native language is not English are required to submit TOEFL or IELTS scores. This requirement may be waived for applicants who have completed a baccalaureate or graduate-level degree program at an English-speaking college or university. In addition, applicants whose native language is not English are required to participate in an oral interview to demonstrate English language skills sufficient to succeed in a rigorous American doctoral program.

All application materials will be retained by SPA and will not be returned. A personal meeting with the PhD director or other faculty member is recommended.

Financial Assistance

For excellent candidates, SPA will fund a small number of doctoral research assistantships each year based on financial availability. Students selected will receive a full-tuition waiver as well as a stipend of \$15,000 for the academic year. SPA's goal is to provide such funding for students for at least three years.

Degree Requirements

Course Work

A total of 36 semester hours of course work is required past a master's degree in public administration or a related degree. In some cases, additional prerequisite courses may be required to assure adequate preparation for doctoral studies. All PhD students are required to take a minimum of 6 semester hours of course work in both the fall and spring semesters, until their course work requirements are met, if they wish to maintain their full-time student status.

During their first year of study, all PhD students are required to take the following four doctoral seminars:

- PUAD 8010 - Historical and Comparative Foundations of Public Administration
- PUAD 8020 - Seminar in Public Management
- PUAD 8030 - Seminar in Public Policy
- PUAD 8040 - Seminar In Economic and Institutional Foundations of Public Affairs

Total: 12 Hours

During the next year, doctoral students are required to take the following methods classes:

- PUAD 8050 - Quantitative Methods I
- PUAD 8060 - Seminar On The Conduct Of Empirical Inquiry
- PUAD 8070 - Quantitative Methods II

Total: 9 Hours

Additional Coursework:

In addition to the three methods classes listed above (8050, 8060, and 8070), students must take an approved qualitative methods course of the student's own choosing. Depending on the student's interest, topics might include qualitative methodology, administrative law, geographical information systems, or social network analysis. In addition, all PhD students must complete four elective courses relevant to the student's dissertation plans. With approval of the PhD director, students may apply up to 9 semester hours of graded graduate-level credit taken at other universities toward their elective courses.

Preliminary Exam, Colloquium and Dissertation

In addition to course work, PhD students must pass a preliminary exam in the testing cycle or semester immediately following the completion of their core courses. Students are also required to complete and defend, before a faculty committee, a dissertation that makes a significant contribution to the literature and theory of public administration, management or policy. Prior to starting the dissertation, students must successfully pass a colloquium (comprehensive exam) that demonstrates their preparation for conducting dissertation research. At the colloquium, a doctoral student presents a dissertation proposal to SPA faculty and students, and to his or her dissertation committee.

Students are advanced to candidacy for the PhD once they have completed all required course work and examinations, have successfully presented their research colloquium and have been certified for candidacy by his/her doctoral committee. After students are formally advanced to candidacy, they must register for a total of 30 hours of dissertation research credit to complete the PhD. Each fall and spring semester, students are expected to register for 5 semester hours of dissertation research; if unable to register for at least 5 semester hours, students must request a

leave of absence from the PhD program until able to complete the minimum dissertation requirement. Students may take up to two semesters' leave of absence before they are disenrolled from the program. Students then would need to reapply to the program.

Further details on the program can be found in the *Handbook for the Doctor of Philosophy in Public Affairs Program*, available from the SPA office or online at <http://spa.ucdenver.edu>.

Licensure

Administrator License - Executive Leadership Program

Administrative Leadership and Policy Studies

Requirements for Principal Licensure, the MA and EdS degrees, and Executive Leadership Administrator Licensure Program

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Web site: www.ucdenver.edu/education/alps

Principal Licensure

Master of Arts Degree

Education Specialist Degree

Executive Leadership Administrator Licensure Program

Faculty

For information about faculty in this area, visit www.ucdenver.edu/education/alps.

The primary responsibility of the administrative leadership and policy studies (ALPS) faculty is to prepare leaders for public education in Colorado and the nation. Currently, the principal license is required for people seeking building-level administrative positions in Colorado.

Principal Licensure Program

ALPS offers course work that leads to the initial license for principal. Having earned an initial license, those who have obtained a master's degree and who go on to complete a district sponsored induction program may then be awarded a professional license by the Colorado Department of Education.

ALPS's 32 semester-hour principal licensure program is project-based, requiring students to present evidence of meeting both state and national standards through performance based assessments. A 400-hour clinical-practice experience is integrated throughout the four-semester program.

Students develop a portfolio during the principal licensure program. Portfolios not finalized by the end of the fourth semester must be completed within the two subsequent semesters (not including summer).

Note: Those already holding a master's degree and 5 years of leadership in education should also see the Executive Leadership Program (below) for pursuing administrator (superintendent) licensure.

Denver Metro-Area Cohorts

Denver metro-area cohorts are delivered in four 8-semester-hour courses over four consecutive semesters. Cohorts start at one or more locations each semester and involve a combination of regular in-person meetings (up to 15 times per semester) and online work.

EDUC 5751 - Principal/Administrator Licensing I Semester Hours: 5 to 9

EDUC 5752 - Principal Administrator Licensing II. Semester Hours: 5 to 9

EDUC 5753 - Principal/Administrator Licensing III. Semester Hours: 5 to 9

EDUC 5754 - Principal or Administrator Licensing IV. Semester Hours: 5 to 9

Total: 32 Hours

Distance-Learning Cohorts

Distance-learning cohorts start each summer in June with a weeklong boot camp in Denver, meet over several intensive weekends during the subsequent fall and spring semesters and end with a weekend the following summer. Online work is completed in between the in-person sessions. Distance-learning cohorts are delivered in **three 9-semester-hour courses and one 5-semester-hour course:**

EDUC 5751 - Principal/Administrator Licensing I. Semester Hours: 5 to 9

EDUC 5752 - Principal Administrator Licensing II. Semester Hours: 5 to 9

EDUC 5753 - Principal/Administrator Licensing III. Semester Hours: 5 to 9

EDUC 5754 - Principal or Administrator Licensing IV. Semester Hours: 5 to 9

Total: 32 Hours

MA Program

The MA is designed for those who do not already hold a graduate degree. Usually master's students will complete 9 semester hours beyond the 32 required in the licensure program, for a total of 41 semester hours of course work after the bachelor's degree.

For the MA degree, students must select at least one course in each of the following three areas:

Section A: Educational Research

RSEM 5100 - Basic Statistics Semester Hours: 3

RSEM 5120 - Introduction to Research Methods Semester Hours: 3

RSEM 5110 - Introduction to Measurement Semester Hours: 3

Section B: Educational Foundations/Multicultural Education

FNDS 5050 - Critical Issues in American Education. Semester Hours: 3

FNDS 5500 - Contemporary Philosophies of Education. Semester Hours: 3

FNDS 5410 - History and Philosophy of Modern Education. Semester Hours: 3

LCRT 5140 or CLDE 5140 - Multicultural Education Semester Hours: 3

LCRT 5150 or CLDE 5150 - Culture of the Classroom Semester Hours: 3

CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdns Semester Hours: 3

Section C: Educational Psychology/Special Education

EDUC 5400 - Special Education Seminar for Principals. Semester Hours: 3

EPSY 5100 - Advanced Child Growth and Development. Semester Hours: 3

EPSY 5110 - Human Learning. Semester Hours: 3
EPSY 5140 - Advanced Adolescent Growth and Development. Semester Hours: 3
EPSY 5160 - Behavior Disorders in Exceptional Children. Semester Hours: 3
EPSY 5200 - Social Psychology of Learning. Semester Hours: 3
SPED 5140 - Advanced Assessment in Special Education. Semester Hours: 3
SPED 5180 - Curriculum Planning for Students with Special Needs. Semester Hours: 3
SPED 5400 - Advanced Seminar in Special Education. Semester Hours: 3
SPED 5600 - Special Education for School Professionals. Semester Hours: 3

Candidates must also successfully complete a comprehensive exam paper, reflecting on how the three MA classes will help them in the role of principal.

EdS Program

The EdS degree program affords the opportunity for advanced graduate study and is available to those who already hold a master's degree. Generally, for the specialist degree students will complete 9 semester hours that constitute an area of focus, in addition to the 32 required in the licensure program. Candidates must also successfully complete a comprehensive exam paper, reflecting on how the three EdS classes will help them in the role of principal.

Administrator Licensure - Executive Leadership Program

Designed for the professional educator who, already holding a master's degree and 5 years leadership experience in education, wishes to obtain an initial administrator license in Colorado and prepare for a career as a superintendent or other district leader. This one-year, 12-semester-hour certificate program combines weekend meetings with online work and hands-on clinical practice—usually completed in participants' home districts. Learn more at www.ucdenver.edu/education/elp.

Additional Program Information

Individuals interested in any of these programs are encouraged to contact ALPS faculty. Conferences prior to application are encouraged and welcomed. Following admission, students are expected to maintain frequent contact with assigned advisors to plan, develop and complete their programs of study.

Early Childhood Special Education Specialist Licensure

Office:

Lawrence Street Center, 701

Telephone:

303-315-6300

Fax:

303-315-6311

E-mail:

education@ucdenver.edu

Web site:

www.ucdenver.edu/education

Faculty:

More information about faculty in this division is available online at www.ucdenver.edu/education

About the early childhood education program

The early childhood education (ECE) program leads to a master's degree in early childhood education and/or Colorado teacher license in early childhood special education (ECSE) specialist. The program prepares leaders who will enrich the life experience of young children (birth to 8 years) and their families through a variety of professional roles.

The ECE program is interdisciplinary in focus, drawing on university resources and the clinical expertise of various community professionals. There is a strong emphasis on fieldwork and practicum experiences in both regular and special education concentrations. Field experiences are a part of each course and provide an opportunity for each student to gain knowledge, abilities and dispositions while interacting with children, families, program staff and community agencies. Practicum experiences are designed to allow students to apply knowledge and practice skills in a closely supervised environment.

Curriculum and Program Requirements

Semester Hour Requirements

Master's degree in ECE: 39 semester hours

ECSE specialist license: 39 semester hours

Master's degree plus ECSE specialist license: 48 semester hours

Master's degree plus ECSE specialist added endorsement: 39 semester hours

ECSE specialist added endorsement: 24 semester hours

Early childhood education and the early childhood special education focus share course content in:

- language development and disorders

- child growth and development, differences and disorders
- learning approaches with young children
- measurement and evaluation
- basic statistics/research methods
- multicultural education
- research and current issues
- early childhood curriculum and program development for inclusive classrooms
- working collaboratively with parents and families
- program administration/leadership

The early childhood education program provides specialized training in:

- language acquisition and development
- literacy instruction
- infant/toddler development
- early childhood mental health and social competence

The early childhood special education program provides specialized training in:

- screening and assessment of young children
- intervention strategies with infants and preschoolers
- behavior management
- working as a member of the transdisciplinary team
- cognitive and socio-emotional development and disorders
- treatment of children who have neurological impairment and chronic illness
- challenging behaviors and autism

For more information on coursework and plans of study, please contact an advisor in the School of Education and Human Development.

Fieldwork and Practicum Requirements

The master's degree in early childhood education includes a total of 425 hours of required fieldwork/practica. Approximately 200 hours of fieldwork are associated with course assignments; 225 hours of intense, culminating practica occur toward the end of the second year of study. Students completing the MA program take a written comprehensive exam (take home) during the final semester of their program (concurrently with courses at the end of the program sequence).

For the master's degree in early childhood education plus the ECSE specialist initial license, a total of 800 hours of fieldwork/practica is required. Approximately 290 hours of fieldwork are associated with course assignments; 510 hours of intense, culminating practica occur toward the end of the second year of study. Students seeking an added endorsement in ECSE specialist also complete 510 hours of practicum experiences.

Elementary/Secondary Education Licensure

Urban Community Teacher Education Program

Lawrence Street Center, 701

Campus Box 106

P.O. Box 173364

Denver, CO 80217-3364

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Website: www.ucdenver.edu/education/ipete

Urban Community Teacher Education Licensure Program Overview

The Urban Community Teacher Education program is both an undergraduate and graduate level program for general education licensure. (Special education is currently only an option at the graduate level, but undergraduates who want to obtain a special education license are encouraged to consider pursuing their endorsement plus an MA in special education .) The expectations for performance are identical for both undergraduates and graduates because the expectations for newly licensed teachers in the state of Colorado are exactly the same. Undergraduates and graduates work side by side in coursework and internships. There are very slight differences including the course registration numbers (undergraduates register for 4000 level; graduate students register for 5000 level) and undergraduates take 1-2 licensure courses and one internship prior to admission in the program. The teacher education program fosters critically reflective inquiry about teaching and learning and the development of collaborative skills necessary to work effectively with other adults on schooling issues. The program strives to meet the needs of an increasingly diverse population of students, and to productively participate in and lead school renewal by applying democratic principles in educational settings.

Education Pathways

The graduate teacher education program at CU Denver is designed for individuals with a minimum of a bachelor's degree who seek a master's degree along with an initial Colorado provisional teacher's license in the following areas:

- **Elementary Education** (K–6) (43 semester hours)
- **Secondary Education** (7–12) (36 semester hours)
 - English
 - mathematics
 - science (general science, biology, earth science, physics, chemistry)
 - social studies
 - foreign language (Spanish, French)
- **Special Education Generalist** (Ages 5–21) (57 semester hours)
- **Dual General Education/Special Education** (60-67 semester hours)

Program Distinctions

Program Structure

The program admits teacher candidates in three cohort groups, one in the summer and one in fall. The initial professional teacher education program includes a full time 1 - 1.5 year licensure plan for regular education and a 1.5 year full time option for initial special education and dual special education. Students will be taking course work at the university and field-based work in one of CU Denver's partner schools. By enrolling in several courses together, elementary and secondary teacher candidates consider how students develop as learners over the entire K–12 school span. This collaborative approach applies to students in the general and special education program as well. This ensures that all elementary and secondary classroom teachers are well-prepared to work with students with special needs and that all special educators have a solid foundation in general education in curriculum and instruction.

Professional Development Schools

While in the licensure portion of the program, teacher candidates work in a partner school one to four days per week, depending on the internship level with the sequence of the program plan. University courses are closely interrelated with the four internship experiences in which teacher candidates gradually assume responsibility for teaching. Elementary teacher candidates generally spend an entire academic year in a single partner elementary school, whereas secondary teacher candidates spend their four internships in one of the partner middle schools *and* one of the partner high schools. The partner schools are located in several Denver metropolitan districts with most serving large populations of low-income and/or minority students, as well as a sizeable number of students for whom English is a second language and students with special needs. Each partner school is supported by a site professor from the university one day per week and by a master teacher/mentor, called a site coordinator.

Assessment

In 2000, Senate Bill 154 required all Colorado teacher education institutions to become performance based. PBA stands for performance based assessment. PBAs are created that correspond to many of the teacher education courses and concurrent practice in the series of internships. In doing so, knowledge can be evaluated as a result of coursework and performance in schools simultaneously. As teacher candidates progress through the program, they will be introduced to Performance Based Assessments (PBAs) and will be guided and supported in both course work and internships. Students seeking dual licensure are responsible for four additional PBAs associated with their second endorsement in Special Education.

The PBAs are:

1. Literacy Instruction & Assessment (elementary and secondary versions)
2. Mathematics Instruction & Assessment (elementary)
3. Subject Matter Content (secondary)
4. Student Profile

5. Classroom Management
6. Teacher Work Sample (TWS)
7. Internship Performance Rubric (used at the end of each internship)

Programs of Study

Due to the complex nature of state mandated influences of teacher preparation courses and consistently evaluating our program to meet student needs, please see current programs of study in the teacher education handbook .

Master's Degree Options

The teacher education program design supports the concept of teacher education as an ongoing developmental process linking preservice, induction and ongoing professional growth experiences. Upon completion of the licensure portion of the program, beginning teachers continue working toward their master's degree (an additional 18-38 semester hours) in the areas of special education, educational psychology, content in English or history in collaboration with the College of Liberal Arts and Sciences, or curriculum and instruction with emphasis areas during their first or second year of teaching. This ensures that CU Denver's new teachers are provided with continuing support from the university while in their first few years of teaching.

Undergraduate Teacher Licensure

Undergraduate Teacher Education Program

The undergraduate teacher education program at CU Denver is a joint effort between the College of Liberal Arts and Sciences and the School of Education & Human Development. Students earn a bachelor's degree through the College of Liberal Arts and Sciences and a teaching license through the School of Education & Human Development.

This undergraduate program is dedicated to quality teacher education. To that end, our admission standards are rigorous and there are a number of program "gates" that teacher candidates go through to complete licensure.

CU Denver has selective admission standards for entering freshmen, including a 93 institutional index that includes students who are typically in the top third of their class or have a 3.4 GPA or score above a 23 on the ACT or 1100 on the SAT. Students transferring from community colleges must have a minimum of a 2.5 GPA.

Please note: The admission into the School of Education & Human Development teacher education program is a separate process from admission to the university. Summer deadlines are January 15 February 15; the fall deadline is March 15. Spring admission deadlines are August 15, September 15 and October 15.*

Undergraduate Teacher Education Pathways

Undergraduate teacher candidates can earn a BA and a Colorado provisional teacher's license in the following areas:

- BA—Individually Structured Major Elementary Education Licensure
- BA—English Literature Secondary English Licensure
- BS—Mathematics Secondary Mathematics Licensure
- BA—History Secondary Social Science Licensure
- BA—Political Science Secondary Social Science Licensure
- BA—Spanish Secondary Spanish Licensure
- BA—French Secondary French Licensure

Program Distinctions

Program Structure

The School of Education & Human Development teacher education program admits teacher candidates in two cohort groups: one in the summer/fall and one in the spring. The initial professional teacher education program includes a 12- or 15-month licensure plan. Students will be taking course work at the university and field-based work in one of CU Denver's partner schools. By enrolling in several courses together, elementary and secondary teacher candidates consider how students develop as learners over the entire K–12 school span. This collaborative approach applies to students in the general and special education program as well. This ensures that all elementary and secondary classroom teachers are well-prepared to work with students with special needs and that all special educators have a solid foundation in general education in curriculum and instruction.

Professional Development Schools

While in the licensure portion of the program, teacher candidates work in a partner school one to four days per week, depending on the internship. University courses are closely interrelated with the four internship experiences in which teacher candidates gradually assume responsibility for teaching. Elementary teacher candidates generally spend an entire academic year in a single partner elementary school, whereas secondary teacher candidates spend their four internships in one of the partner middle schools *and* one of the partner high schools. The partner schools are located in several Denver metropolitan districts with most serving large populations of low-income and/or minority students, as well as a sizeable number of students for whom English is a second language and students with special needs. Each partner school is supported by a site professor from the university one day per week and by a master teacher, called a site coordinator.

Assessment

In 2000, Senate Bill 154 required all Colorado teacher education institutions to become performance based. PBA stands for performance based assessment. PBAs are created that correspond to many of the teacher education courses and concurrent practice in the series of internships. In doing so, knowledge can be evaluated as a result of coursework and performance in schools simultaneously. As teacher candidates progress through the program, they will be introduced to Performance Based Assessments (PBAs) and will be guided and supported in both coursework and internships. Students seeking dual licensure are responsible for four additional PBAs associated with their second endorsement in Special Education.

The PBAs are:

1. Literacy Instruction & Assessment (elementary and secondary versions)
2. Mathematics Instruction & Assessment (elementary)
3. Subject Matter Content (secondary)
4. Student Profile
5. Classroom Management
6. Teacher Work Sample (TWS)
7. Internship Performance Rubric (used at the end of each internship)

Passing the PLACE or PRAXIS II Content examination prior to the final internship is also required before a candidate is eligible for a provisional teaching license in Colorado.

Undergraduate Advising

Undergraduate teacher candidates will have a team of individuals who work with them throughout the completion of their bachelor's degree and teacher licensure. The following are the members of the advising team:

College of Liberal Arts and Science (CLAS) Education Advisor

The CLAS advisor will assist you upon entry to the university through graduation. The CLAS advisor will monitor your progress through the core curriculum, pre-UCTE curriculum, eligibility requirements for the UCTE program and transfer credits. The CLAS advisor will also approve individually structured major-elementary education contracts for elementary education teacher candidates.

Faculty Advisor

A faculty advisor designated within the academic department works with undergraduate teacher education students pursuing secondary licensure regarding specific requirements within academic major (i.e., English, history, mathematics, Spanish, French, and political science). See the CLAS advisor for specific names and contact information.

School of Education and Human Development Advisor

An advisor in the School of Education and Human Development's Student Services Center (Lawrence St. Center Bldg., 701; 303-315-6300) is able to help with questions about prerequisite completion, taking the PRAXIS II/PLACE exam and other general questions.

UCTE Undergraduate Academic Planning Sheets

Developed in collaboration with the academic departments and UCTE program faculty, advisors will work with the teacher candidates on an academic planning sheet. There is little flexibility in the program course requirements as these requirements meet and exceed the Colorado Department of Education's teacher education professional and content standards.

UCTE Undergraduate Community College Articulation

CU Denver honors the community college articulation agreement to transfer the 60 designated semester hours from the community college to anyone admitted to the teacher licensure program. If the teacher candidate is a transfer student, he/she should work with his/her CLAS advisor early and often to ensure that all courses are transferred properly.

Programs of Study

Due to the complex nature of state mandated influences of teacher preparation courses and consistently evaluating this program for students, please refer to the most current version of the [\[\[permalink=753|popup\]\]teacher education program handbook\[\[/permalink\]\]](#) for academic requirements for this program.

Requirements for Admission

The program rolling admissions each semester. Summer admission deadlines are January 15 & February 15; Fall admission deadline is March 15 and April 15.

Urban Community Teacher Education Information Sessions

All prospective teacher candidates are strongly encouraged to attend an information session before applying to the program. Information sessions are held twice a month lasting approximately 60-90 minutes. Advisors will be available to provide prospective students transcript reviews and pre-admission advising. To more effectively facilitate this process, please bring copies of all transcripts with you. A calendar of upcoming information sessions can be viewed on the CU Denver website. Go to www.ucdenver.edu/education to reserve a space under the menu item "Information Sessions."

Urban Community Teacher Education Program Requirements

- Applicants to the urban community teacher education program must hold at least a bachelor's degree with a minimum undergraduate cumulative GPA of 2.75 for admission.
- Graduate candidates with a GPA less than 2.75 are required to take the GRE, with a combined score of 150 each on the verbal and quantitative sections; or the Miller Analogies Test, with an average score of 400–600, before consideration for admittance.
- Verification of passing official scores for PLACE or PRAXIS II.
- All elementary education candidates must have a liberal arts major or equivalent content courses that provide a broad background of knowledge. *
- All secondary education candidates must have a major or major equivalent of at least 30 semester hours in their desired teaching field. *
- Undergraduate candidates must have an individually structured elementary emphasis.
- A complete application which can be obtained at scheduled information sessions, downloaded online, or at the Student Services Center

*This is determined through transcript evaluations with an evaluator.

Principal Licensure

Administrative Leadership and Policy Studies

Requirements for Principal Licensure, the MA and EdS degrees, and Executive Leadership Administrator Licensure Program

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Web site: www.ucdenver.edu/education/alps

Principal Licensure

Master of Arts Degree

Education Specialist Degree

Executive Leadership Administrator Licensure Program

Faculty

For information about faculty in this area, visit www.ucdenver.edu/education/alps.

The primary responsibility of the administrative leadership and policy studies (ALPS) faculty is to prepare leaders for public education in Colorado and the nation. Currently, the principal license is required for people seeking building-level administrative positions in Colorado.

Principal Licensure Program

ALPS offers course work that leads to the initial license for principal. Having earned an initial license, those who have obtained a master's degree and who go on to complete a district sponsored induction program may then be awarded a professional license by the Colorado Department of Education.

ALPS's 32 semester-hour principal licensure program is project-based, requiring students to present evidence of meeting both state and national standards through performance based assessments. A 400-hour clinical-practice experience is integrated throughout the four-semester program.

Students develop a portfolio during the principal licensure program. Portfolios not finalized by the end of the fourth semester must be completed within the two subsequent semesters (not including summer).

Note: Those already holding a master's degree and 5 years of leadership in education should also see the Executive Leadership Program (below) for pursuing administrator (superintendent) licensure.

Denver Metro-Area Cohorts

Denver metro-area cohorts are delivered in four 8-semester-hour courses over four consecutive semesters. Cohorts start at one or more locations each semester and involve a combination of regular in-person meetings (up to 15 times per semester) and online work.

EDUC 5751 - Principal/Administrator Licensing I Semester Hours: 5 to 9

EDUC 5752 - Principal Administrator Licensing II. Semester Hours: 5 to 9

EDUC 5753 - Principal/Administrator Licensing III. Semester Hours: 5 to 9

EDUC 5754 - Principal or Administrator Licensing IV. Semester Hours: 5 to 9

Total: 32 Hours

Distance-Learning Cohorts

Distance-learning cohorts start each summer in June with a weeklong boot camp in Denver, meet over several intensive weekends during the subsequent fall and spring semesters and end with a weekend the following summer. Online work is completed in between the in-person sessions. Distance-learning cohorts are delivered in **three 9-semester-hour courses and one 5-semester-hour course:**

EDUC 5751 - Principal/Administrator Licensing I. Semester Hours: 5 to 9

EDUC 5752 - Principal Administrator Licensing II. Semester Hours: 5 to 9

EDUC 5753 - Principal/Administrator Licensing III. Semester Hours: 5 to 9

EDUC 5754 - Principal or Administrator Licensing IV. Semester Hours: 5 to 9

Total: 32 Hours

MA Program

The MA is designed for those who do not already hold a graduate degree. Usually master's students will complete 9 semester hours beyond the 32 required in the licensure program, for a total of 41 semester hours of course work after the bachelor's degree.

For the MA degree, students must select at least one course in each of the following three areas:

Section A: Educational Research

RSEM 5100 - Basic Statistics Semester Hours: 3

RSEM 5120 - Introduction to Research Methods Semester Hours: 3

RSEM 5110 - Introduction to Measurement Semester Hours: 3

Section B: Educational Foundations/Multicultural Education

FNDS 5050 - Critical Issues in American Education. Semester Hours: 3

FNDS 5500 - Contemporary Philosophies of Education. Semester Hours: 3

FNDS 5410 - History and Philosophy of Modern Education. Semester Hours: 3

LCRT 5140 or CLDE 5140 - Multicultural Education Semester Hours: 3

LCRT 5150 or CLDE 5150 - Culture of the Classroom Semester Hours: 3

CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdns Semester Hours: 3

Section C: Educational Psychology/Special Education

EDUC 5400 - Special Education Seminar for Principals. Semester Hours: 3

EPSY 5100 - Advanced Child Growth and Development. Semester Hours: 3

EPSY 5110 - Human Learning. Semester Hours: 3

EPSY 5140 - Advanced Adolescent Growth and Development. Semester Hours: 3

EPSY 5160 - Behavior Disorders in Exceptional Children. Semester Hours: 3

EPSY 5200 - Social Psychology of Learning. Semester Hours: 3

SPED 5140 - Advanced Assessment in Special Education. Semester Hours: 3

SPED 5180 - Curriculum Planning for Students with Special Needs. Semester Hours: 3

SPED 5400 - Advanced Seminar in Special Education. Semester Hours: 3

SPED 5600 - Special Education for School Professionals. Semester Hours: 3

Candidates must also successfully complete a comprehensive exam paper, reflecting on how the three MA classes will help them in the role of principal.

EdS Program

The EdS degree program affords the opportunity for advanced graduate study and is available to those who already hold a master's degree. Generally, for the specialist degree students will complete 9 semester hours that constitute an area of focus, in addition to the 32 required in the licensure program. Candidates must also successfully complete a comprehensive exam paper, reflecting on how the three EdS classes will help them in the role of principal.

Administrator Licensure - Executive Leadership Program

Designed for the professional educator who, already holding a master's degree and 5 years leadership experience in education, wishes to obtain an initial administrator license in Colorado and prepare for a career as a superintendent or other district leader. This one-year, 12-semester-hour certificate program combines weekend meetings with online work and hands-on clinical practice—usually completed in participants' home districts. Learn more at www.ucdenver.edu/education/elp.

Additional Program Information

Individuals interested in any of these programs are encouraged to contact ALPS faculty. Conferences prior to application are encouraged and welcomed. Following admission, students are expected to maintain frequent contact with assigned advisors to plan, develop and complete their programs of study.

Special Education

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Website: www.ucdenver.edu/education

Special Education Program Overview

The special education program within the initial professional teacher education division offers a special education generalist license and a special education endorsement as well as a master of arts degree in special education. All special education program options foster the development of critical reflection, inquiry about teaching and learning, as well as the breadth and depth in content knowledge necessary to work effectively in elementary and secondary classrooms. The program faculty promote the ability of teacher candidates to meet the needs of an increasingly diverse population of K–12 learners, as well as to participate productively in and lead school renewal.

The faculty in the program in special education value collaborative relationships between general and special educators, so we offer our teacher candidates the option of pursuing a dual endorsement in both general and special education to offer our teacher candidates the option of pursuing a dual endorsement in both general and special education.

Special Education Program Distinctions

Special Education Licensing Pathways

To be a licensed as a special education generalist for grades ages 5-21, a teacher candidate must hold a bachelor's degree from a four-year accepted institution of higher education, have completed the plan of study from one of the program options for the preparation of special education generalist, have passed the state special education assessment and have demonstrated all required state and national standards.

Program options for the special education generalist include: 1) initial licensure as a special education generalist; 2) dual licensure in either elementary or secondary education and as a special education generalist; and, 3) for those who already hold a Colorado teaching license, an added endorsement, which is also fully online. There is also an option to count these courses towards a masters in special education which will require an additional 12 semester hours of face to face course work and portfolio.

The time needed to complete the various special education generalist program options varies based on the needs of teacher candidates. In addition to traditional on-campus offerings, a wide selection of courses are available in online formats. During the academic year, core special education courses are scheduled in late afternoons and evenings to avoid conflict with teaching responsibilities.

Professional Development Schools

While in the licensure portion of the program, teacher candidates work in a partner school one to four days per week, depending on the internship. University courses are closely interrelated

with the four internship experiences in which teacher candidates gradually assume responsibility for teaching. Special education teacher candidates engage in a series of four internships from the beginning of the program to the end of the program. Dual teacher candidates engage in two internships that result in a general education license at the elementary or secondary level and then two special education internships and additional course work; leading to an endorsement in special education. The partner schools are located in several Denver metropolitan districts with most serving large populations of low-income and/or minority students, as well as a sizeable number of students for whom English is a second language and students with special needs. Each partner school is supported by a site professor from the university one day per week and by a master teacher, called a site coordinator.

Assessment

In 2000, Senate Bill 154 required all Colorado teacher education institutions to become performance based. PBA stands for performance based assessment. PBAs are created that correspond to many of the teacher education courses and concurrent practice in the series of internships. In doing so, knowledge can be evaluated as a result of coursework and performance in schools simultaneously. As teacher candidates progress through the program, they will be introduced to Performance Based Assessments (PBAs) and will be guided and supported in both course work and internships. Students seeking dual licensure are responsible for four additional PBAs associated with their second endorsement in special education.

The PBAs are:

1. Literacy Instruction & Assessment (elementary and secondary versions)
2. Mathematics Instruction & Assessment (elementary)
3. Subject Matter Content (secondary)
4. Student Profile
5. Classroom Management
6. Teacher Work Sample (TWS)
7. Internship Performance Rubric (used at the end of each internship)

The four additional PBAs that all teacher candidates in the special education program are expected to proficiently complete include:

1. Assessment
2. Collaboration & Positive Behavior Supports
3. Literacy Instruction for Students with Identified Special Needs
4. The Individualized Education Program (I.E.P.) Process

Passing the PLACE special education generalist examination prior to the final internship is also required before a candidate is eligible for a provisional special education generalist teaching license in Colorado. Dual candidates must also pass state content knowledge exams prior to admission.

Programs of Study

Due to the complex nature of state mandated influences of teacher preparation courses and constantly evaluated the program to meet student's needs, please refer to the most current version of the Special Education Handbook for academic requirements for this program.

Requirements for Admission

The program conducts admissions each semester. Summer admission deadlines are January 15 and February 15; fall admission is March 15 and April 15. Spring admission deadlines are August 15 and September 15.

Teacher Education Information Sessions

All prospective teacher candidates are strongly encouraged to attend an information session before applying to the program. Information sessions are held twice a month lasting approximately 60-90 minutes. Advisors will be available to provide prospective students transcript reviews and pre-admission advising. To more effectively facilitate this process, please bring copies of all transcripts with you. A calendar of upcoming information sessions can be viewed on the CU Denver website. Go to www.ucdenver.edu/education and click on "Information Session" to reserve a space.

Teacher Education Program Requirements

- Applicants to the UCTE program must hold at least a bachelor's degree with a minimum undergraduate cumulative GPA of 2.75 for admission.
- Graduate candidates with a GPA less than 2.75 are required to take the GRE, with a combined score of 1000 on the verbal and quantitative sections; or the Miller Analogies Test, with an average score of 400–600, before consideration for admittance.
- All elementary education candidates must have a liberal arts major or equivalent content courses that provide a broad background of knowledge. *
- All secondary education candidates must have a major or major equivalent of at least 30 semester hours in their desired teaching field. *
- Copy of passing official scores for PLACE or PRAXIS II.
- A complete application on file that can be obtained at information sessions, online or through the Student Services Center.

*This is determined through transcript evaluations at information sessions.

Undergraduate Teacher Licensure

Undergraduate Teacher Education Program

The undergraduate teacher education program at CU Denver is a joint effort between the College of Liberal Arts and Sciences and the School of Education & Human Development. Students earn a bachelor's degree through the College of Liberal Arts and Sciences and a teaching license through the School of Education & Human Development.

This undergraduate program is dedicated to quality teacher education. To that end, our admission standards are rigorous and there are a number of program “gates” that teacher candidates go through to complete licensure.

CU Denver has selective admission standards for entering freshmen, including a 93 institutional index that includes students who are typically in the top third of their class or have a 3.4 GPA or score above a 23 on the ACT or 1100 on the SAT. Students transferring from community colleges must have a minimum of a 2.5 GPA.

Please note: The admission into the School of Education & Human Development teacher education program is a separate process from admission to the university. Summer deadlines are January 15* February 15; the fall deadline is March 15. Spring admission deadlines are August 15, September 15 and October 15.

Undergraduate Teacher Education Pathways

Undergraduate teacher candidates can earn a BA and a Colorado provisional teacher's license in the following areas:

- BA—Individually Structured Major Elementary Education Licensure
- BA—English Literature Secondary English Licensure
- BS—Mathematics Secondary Mathematics Licensure
- BA—History Secondary Social Science Licensure
- BA—Political Science Secondary Social Science Licensure
- BA—Spanish Secondary Spanish Licensure
- BA—French Secondary French Licensure

Program Distinctions

Program Structure

The School of Education & Human Development teacher education program admits teacher candidates in two cohort groups: one in the summer/fall and one in the spring. The initial professional teacher education program includes a 12- or 15-month licensure plan. Students will be taking course work at the university and field-based work in one of CU Denver's partner schools. By enrolling in several courses together, elementary and secondary teacher candidates consider how students develop as learners over the entire K–12 school span. This collaborative approach applies to students in the general and special education program as well. This ensures that all elementary and secondary classroom teachers are well-prepared to work with students with special needs and that all special educators have a solid foundation in general education in curriculum and instruction.

Professional Development Schools

While in the licensure portion of the program, teacher candidates work in a partner school one to four days per week, depending on the internship. University courses are closely interrelated with the four internship experiences in which teacher candidates gradually assume responsibility for teaching. Elementary teacher candidates generally spend an entire academic year in a single partner elementary school, whereas secondary teacher candidates spend their four internships in one of the partner middle schools *and* one of the partner high schools. The partner schools are located in several Denver metropolitan districts with most serving large populations of low-income and/or minority students, as well as a sizeable number of students for whom English is a second language and students with special needs. Each partner school is supported by a site professor from the university one day per week and by a master teacher, called a site coordinator.

Assessment

In 2000, Senate Bill 154 required all Colorado teacher education institutions to become performance based. PBA stands for performance based assessment. PBAs are created that correspond to many of the teacher education courses and concurrent practice in the series of internships. In doing so, knowledge can be evaluated as a result of coursework and performance in schools simultaneously. As teacher candidates progress through the program, they will be introduced to Performance Based Assessments (PBAs) and will be guided and supported in both coursework and internships. Students seeking dual licensure are responsible for four additional PBAs associated with their second endorsement in Special Education.

The PBAs are:

1. Literacy Instruction & Assessment (elementary and secondary versions)
2. Mathematics Instruction & Assessment (elementary)
3. Subject Matter Content (secondary)
4. Student Profile
5. Classroom Management
6. Teacher Work Sample (TWS)
7. Internship Performance Rubric (used at the end of each internship)

Passing the PLACE or PRAXIS II Content examination prior to the final internship is also required before a candidate is eligible for a provisional teaching license in Colorado.

Undergraduate Advising

Undergraduate teacher candidates will have a team of individuals who work with them throughout the completion of their bachelor's degree and teacher licensure. The following are the members of the advising team:

College of Liberal Arts and Science (CLAS) Education Advisor

The CLAS advisor will assist you upon entry to the university through graduation. The CLAS advisor will monitor your progress through the core curriculum, pre-UCTE curriculum, eligibility requirements for the UCTE program and transfer credits. The CLAS advisor will also approve individually structured major-elementary education contracts for elementary education teacher candidates.

Faculty Advisor

A faculty advisor designated within the academic department works with undergraduate teacher education students pursuing secondary licensure regarding specific requirements within academic major (i.e., English, history, mathematics, Spanish, French, and political science). See the CLAS advisor for specific names and contact information.

School of Education and Human Development Advisor

An advisor in the School of Education and Human Development's Student Services Center (Lawrence St. Center Bldg., 701; 303-315-6300) is able to help with questions about prerequisite completion, taking the PRAXIS II/PLACE exam and other general questions.

UCTE Undergraduate Academic Planning Sheets

Developed in collaboration with the academic departments and UCTE program faculty, advisors will work with the teacher candidates on an academic planning sheet. There is little flexibility in the program course requirements as these requirements meet and exceed the Colorado Department of Education's teacher education professional and content standards.

UCTE Undergraduate Community College Articulation

CU Denver honors the community college articulation agreement to transfer the 60 designated semester hours from the community college to anyone admitted to the teacher licensure program. If the teacher candidate is a transfer student, he/she should work with his/her CLAS advisor early and often to ensure that all courses are transferred properly.

Programs of Study

Due to the complex nature of state mandated influences of teacher preparation courses and consistently evaluating this program for students, please refer to the most current version of the teacher education program handbook for academic requirements for this program.

Endorsement Programs

Early Childhood Special Education Specialist Endorsement

Office:

Lawrence Street Center, 701

Telephone:

303-315-6300

Fax:

303-315-6311

E-mail:

education@cudenver.edu

Web site:

www.ucdenver.edu/education

Faculty:

More information about faculty in this division is available online at www.ucdenver.edu/education

About the early childhood education program

The early childhood education (ECE) program leads to a master's degree in early childhood education and/or Colorado teacher license in early childhood special education (ECSE) specialist. The program prepares leaders who will enrich the life experience of young children (birth to 8 years) and their families through a variety of professional roles.

The ECE program is interdisciplinary in focus, drawing on university resources and the clinical expertise of various community professionals. There is a strong emphasis on fieldwork and practicum experiences in both regular and special education concentrations. Field experiences are a part of each course and provide an opportunity for each student to gain knowledge, abilities and dispositions while interacting with children, families, program staff and community agencies. Practicum experiences are designed to allow students to apply knowledge and practice skills in a closely supervised environment.

Curriculum and Program Requirements

Semester Hour Requirements

Master's degree in ECE: 39 semester hours

ECSE specialist license: 39 semester hours

Master's degree plus ECSE specialist license: 48 semester hours

Master's degree plus ECSE specialist added endorsement: 39 semester hours

ECSE specialist added endorsement: 24 semester hours

Early childhood education and the early childhood special education focus share course content in:

- language development and disorders
- child growth and development, differences and disorders
- learning approaches with young children
- measurement and evaluation
- basic statistics/research methods
- multicultural education
- research and current issues
- early childhood curriculum and program development for inclusive classrooms
- working collaboratively with parents and families
- program administration/leadership

The early childhood education program provides specialized training in:

- language acquisition and development
- literacy instruction
- infant/toddler development
- early childhood mental health and social competence

The early childhood special education program provides specialized training in:

- screening and assessment of young children
- intervention strategies with infants and preschoolers
- behavior management
- working as a member of the transdisciplinary team
- cognitive and socio-emotional development and disorders
- treatment of children who have neurological impairment and chronic illness
- challenging behaviors and autism

For more information on coursework and plans of study, please contact an advisor in the School of Education and Human Development.

Fieldwork and Practicum Requirements

The master's degree in early childhood education includes a total of 425 hours of required fieldwork/practica. Approximately 200 hours of fieldwork are associated with course assignments; 225 hours of intense, culminating practica occur toward the end of the second year of study. Students completing the MA program take a written comprehensive exam (take home) during the final semester of their program (concurrently with courses at the end of the program sequence).

For the master's degree in early childhood education plus the ECSE specialist initial license, a total of 800 hours of fieldwork/practica is required. Approximately 290 hours of fieldwork are associated with course assignments; 510 hours of intense, culminating practica occur toward the

end of the second year of study. Students seeking an added endorsement in ECSE specialist also complete 510 hours of practicum experiences.

Instructional Technology Endorsement

K–12 teachers may elect to complete a 24-semester-hour program leading to state endorsement in instructional technology at the teacher or specialist level. Teachers beginning their careers may complete 24 semester hours for teacher-level endorsement. More experienced teachers may complete 24 semester hours for the specialist-level endorsement.

For complete details about ILT programs, endorsement requirements and certificates, see the ILT website.

Linguistically Diverse Education Endorsement

Linguistically Diverse Education

Requirements for LDE Program

(Degree/Endorsement or Certificates - TESOL, CRUE, TCLD)

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Web site: www.ucdenver.edu/education/lde

Faculty

Information about faculty in this program is available at www.ucdenver.edu/education/lde. The faculty of linguistically diverse education (LDE) believe that effective teaching requires an awareness of and the ability to respond to individual differences. LDE faculty also emphasize the importance of teachers as scholars and reflective practitioners. In particular, teachers must understand how linguistic and cultural diversity affect their teaching. Two themes run throughout all program offerings. The first concerns the importance of recognizing a variety of literacies—"home" literacies, school literacy, "mainstream" literacy, first and second language literacies—and to develop teaching practices that utilize an understanding of the complexity of literacy development across language contexts. The second theme involves the meaningful use of language and literacy to improve the quality of one's life. As an approach to teaching, this theme emphasizes the creation of diverse, rich environments in which learners experience oral and written language as part of authentic tasks, and where concern for the cultural and linguistic heritage of the students is evident.

Program Options

The LDE program offers options leading to the following:

- a Master of Arts in Curriculum and Instruction
- the Colorado Endorsement for Culturally and Linguistically Diverse Education
- a Teaching English to Speakers of Other Languages (TESOL) certificate
- a Culturally Responsive Urban Education (CRUE) certificate
- a Teaching for Cultural and Linguistic Diversity (TCLD) certificate

The program is intended for:

- novice teachers who have completed their Colorado teaching credentials in CU Denver's graduate teacher education licensure program and are enrolled in the MA in curriculum and instruction with an emphasis in LDE (see 27 semester-hour option)
- veteran elementary and secondary teachers returning to graduate studies for the master's degree (36 semester hours)
- veteran elementary and secondary teachers returning to acquire Colorado endorsement credentials (24 semester hours)
- individuals interested in teaching English abroad (TESOL: 15 semester hours)

- elementary and secondary teachers who desire preparation in better meeting the needs of culturally diverse learners (CRUE: 9 semester hours)
- veteran elementary and secondary teachers returning to graduate studies for a certificate to aid them in helping their English language learners succeed (TCLD: 9 semester hours)
- individuals interested in teaching adults (MA: 36 semester hours)

The MA is a field-based professional development program involving university faculty and practicing LDE instructors in public school and intensive English settings. Courses, laboratories and practica emphasize scholarly approaches to complex problems of practice and feature interactive, collaborative and practical approaches to working with English language learners.

We advocate a sociocultural approach to issues of language and learning, acknowledging the legitimacy of linguistic and cultural differences and recognizing that academic settings represent important socializing forces in students' lives. Because of this, we emphasize the "whole learner" in our teaching and in teacher education and teacher development, understanding that individuals do not merely add a language to their repertoire of communication but make fundamental identity adjustments as they progress in their studies. For this reason, all our course work, laboratories and practica experiences are field-based, putting our program participants in contact with veteran teachers and English language learners. We draw heavily on recent scholarship in collaborative approaches to school-university partnerships and systemic school change in developing classroom methods and materials, curricula and teacher development experiences.

The MA program also provides a foundation in teaching English in a variety of contexts in the United States and abroad. Teachers who work in LDE programs or in other content areas (such as art, language arts, math, music, science, social studies or technology), but who wish to integrate LDE principles and strategies into their instruction for their English language learners, will find the MA program relevant to their interests and goals.

Course work includes language teaching methodology, language acquisition, linguistic analysis of English, multicultural foundations, assessment, literacy and other areas. This program has been developed as an advanced course of study for practicing teachers or individuals with some teaching experience.

Applicants who are new to teaching, and who wish to teach in U.S. K–12 public school settings, should inquire about the teacher education licensure program. Applicants who are new to teaching, but who do not need a teaching license (certification) because they do not wish to teach in U.S. public schools, may consider the TESOL certificate to gain initial teaching experiences before applying for the MA.

Program Requirements and Courses

To complete the LDE program and earn a master's degree and/or endorsement, or to earn a TESOL certificate, students must complete the appropriate course work as outlined in the table below.

Requirements for LDE Program (Degree/Endorsement or TESOL Certificate)					
Course	MA without CDE Endorsement in LDE	MA and CDE Endorsement in CLDE	CDE Endorsement in CLDE Only	MA and CDE Endorsement in CLDE (when added to CU Denver's graduate teacher education licensure program)	TESOL Certificate
CLDE 5010 - Foundations of Language, Literacy and Culture	Required	Required	Required	Required	
<i>One course from culture options:</i> CLDE 5140 - Multicultural Education CLDE 5150 - Culture of the Classroom CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdn	Select One	Select One	Select One	Select One	
CLDE 5070 - Linguistic Analysis of English: Implications for Teaching	Required	Required	Required	Required	Required
CLDE 5030 - Language & Literacy Acquisition Div Lrn	Required	Required	Required	Required	Required
CLDE 5820 - Techniques in Teaching English as a Second Language	Required	Required	Required	Required	Required

CLDE 5050 - Assessment & Advocacy for Diverse Learners	Required	Required	Required	Required	Required
<i>One course from field-based teaching options:</i> LCRT 5020 - Workshop in Literacy and Language Teaching CLDE 5825 - Methods and Materials of Language Teaching CLDE 5826 - Language Teaching Lab LCRT 5730 - Language and Literacy Across the Curriculum LCRT 5770 - Effective Literacy Instruction for Second Language Learners	5826 preferred	Elem: 5825 preferred Sec: 5826 preferred	Elem: 5825 preferred Sec: 5826 preferred	Elem: 5825 preferred Sec: 5826 preferred	5826
CLDE 5035 - Language and Literacy: Acquisition, Processes, and Cognition, Part II	Required	Required			
CLDE 6912 - Seminar and Practicum in Literacy and Language, ESL and Bilingual Education	Required	Required	Required	Required	
<i>One course from research and evaluation methodology:</i> RSEM 5050 - Classroom Assessment RSEM 5080 - Research In Schools	Select One	Select One		Select One	
<i>One course from educational psychology:</i> EPSY 5110 - Human Learning	Select One	Select One			

EPSY 5220 - Adult Learning and Education					
Graduate-level University of Colorado elective	Select One	Select One			
Cumulative online portfolio	Required	Required	Required	Required	
LDE PLACE Exam (not required for students beginning Spring 2013 or later)		Only required if beginning prior to spring 2013	Only required if beginning prior to spring 2013	Only required if beginning prior to spring 2013	
Total Semester Hours	36	36	24	27	15

Culturally Responsive Urban Education (CRUE) Certificate Requirements

Those considering the CRUE certificate must complete the following:

CLDE 5170 - Race, Class and Culture in Public Schools Semester Hours: 3

CLDE 5180 - Working with Communities and Families Semester Hours: 3

CLDE 5190 - Culturally Responsive Pedagogy and Practices Semester Hours: 3

Total: 9 Hours

This certificate is only offered as a cohort, through our district partnerships. Additional information about the CRUE certificate can be found at www.cruecenter.org/certificate.php.

Teaching for Cultural and Linguistic Diversity (TCLD) Certificate

The TCLD Certificate (formerly known as Content Instruction for English Learners (CIEL) is a graduate certificate providing a foundation in teaching content to students whose first language is other than English. The program is designed for content-area teachers (math, science, social studies, etc.) who have English language learners in their classes. This certificate is also valuable to content area coaches or administrators who provide support for teachers with English language learners. The certificate is appropriate for public school and community college personnel.

The certificate totals nine credit hours with the specialty area in linguistically diverse education (LDE). All courses are three graduate credit hours and may be applied directly toward a full master's degree in Curriculum and Instruction with an emphasis in LDE while also fulfilling the requirements toward a Colorado Culturally and Linguistically Diverse Education Endorsement. Courses may also be applied toward the Teaching English to Speakers of Other

Languages (TESOL) Certificate. Additional courses and applications are required for these programs.

The certificate may be completed in one year. Those pursuing the TCLD certificate must complete the following:

CLDE 5030 - Language & Literacy Acquisition Div Lrn

CLDE 5820 - Techniques in Teaching English as a Second Language

LCRT 5770 - Effective Literacy Instruction for Second Language Learners

The TCLD certificate is being offered only through our district partnerships.

Cumulative Portfolio of Performance Based Assessments (PBAS)

The portfolio is required for the CLDE endorsement, counts as the comprehensive exam for the master's degree and permits you to document your development over the course of your program. Portfolios are reviewed by LDE faculty members. The portfolio process is reviewed in every class as each of the PBAs is completed in the classes, helping students to update their portfolios throughout the program. For more portfolio guidelines, visit the website at <http://www.ucdenver.edu/education>, click on "Current Students" and select Linguistically Diverse Education from the "Program specific resources" drop-down menu.

PLACE Exam for Linguistically Diverse Education Endorsement

To add the endorsement to their teaching license, students beginning the program prior to Spring 2013 must pass the PLACE (Program for Licensing Assessments for Colorado Educators) exam for linguistically diverse education, secure and submit the appropriate paperwork from the Colorado Department of Education, and pay fees required for the PLACE and for the endorsement paperwork. Information about PLACE is online at www.place.nesinc.com. Students beginning Spring 2013 or later will be eligible for the Culturally and Linguistically Diverse Education Endorsement and will not be required to pass the PLACE exam to receive the CLDE endorsement.

Course Scheduling

During the fall and spring semesters, most university courses are offered in the late afternoon and evening and meet for three hours once a week over a 16-week semester. Some alternative course schedules are available, such as meeting on five Friday-evening/all-day Saturday combinations. In the summer semester, three-to eight-week sessions are offered, and courses may be in the morning, afternoon or evening.

Planning

For practicing full-time teachers, we recommend taking one course each fall and spring semester and up to two courses each summer. Students may simultaneously complete requirements for the MA and the endorsement for culturally and linguistically diverse education (some courses are offered only once per year.)

Active Status

Students must complete their programs within seven years, maintaining a GPA of 3.0. Students typically take four courses each calendar year. Failure to enroll over three contiguous semesters will result in a requirement to submit readmission materials.

Reading Teaching Endorsement

Literacy, Language and Culturally Responsive Teaching

MA Requirements for the Reading and Writing Option and Secondary English Education Option, plus Reading Teacher Endorsement and Certificate Programs

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Websites: www.ucdenver.edu/education/literacy and www.ucdenver.edu/education/englished

Reading and Writing

Secondary English

Early and Adolescent Literacy Certificates

Faculty

Information about faculty in this program is available online at www.ucdenver.edu/education/literacy.

The faculty of literacy, language and culturally responsive teaching (LLCRT) believe that effective teaching requires an awareness of and the ability to respond to individual differences. LLCRT faculty also emphasize the importance of teachers as scholars and reflective practitioners. In particular, teachers must understand how linguistic and cultural diversity affect their teaching. Two themes run throughout all program offerings. The first concerns the importance of recognizing a variety of literacies—"home" literacies, school literacy, "mainstream" literacy, first and second language literacies—and to develop teaching practices that utilize an understanding of the complexity of literacy development across language contexts. The second theme involves the meaningful use of language and literacy to improve the quality of one's life. As an approach to teaching, this theme emphasizes the creation of diverse, rich environments in which learners experience oral and written language as part of authentic tasks, and where concern for the cultural and linguistic heritage of the students is evident.

Reading and Writing Option and Reading Teacher Endorsement

This master's program is designed for K-6 and 7-12 teachers. This program is a credentialed program meeting the Colorado Department of Education requirements for the reading teacher endorsement. Therefore, students who obtain a master's degree emphasizing reading and writing are certified to hold positions in public and private schools as special developmental and reading teachers in K-6 or 7-12. This program is also valuable for elementary and secondary teachers who wish to enhance reading and writing instruction in their classrooms.

By placing emphasis on the reading, writing and oral and visual language development of culturally, linguistically and academically diverse student populations, this master's program is at the forefront of the field. Language is approached from a socio-psycholinguistic perspective

that emphasizes the learner's construction of meaning rather than the learning of isolated skills. Importance is placed on using theory, inquiry and personal reflection to inform classroom practice. The program prepares teachers to become decision makers capable of developing learner-centered curricula where each student's reading and writing abilities are assessed to address developmental or special needs.

Curriculum

Course offerings lead to an MA degree in curriculum and instruction with an emphasis in reading and writing, as well as a reading teacher endorsement, at one of two levels: K–6 or 7–12.

Those who have completed University of Colorado Denver's graduate teacher education licensure program must earn an additional 27 semester hours to obtain the MA and endorsement. Those who completed licensure through other means must earn an additional 36 semester hours to obtain the MA and endorsement.

Teachers may add a reading teacher endorsement to an already-earned master's degree in education by taking those courses listed under the chosen endorsement level. (In the state of Colorado, the reading teacher endorsement cannot simply be added to a bachelor's degree.) Electives and core courses are not required for those seeking the endorsement only. Two additional courses must be taken in other areas specified by the Colorado Department of Education. In many cases, previous master's degree courses will satisfy this requirement.

Requirements for Reading and Writing Program (Degree/Endorsement Options)						
	ELEMENTARY (K-6)			SECONDARY (7-12)		
Course	MA & CDE Endorsement	MA & CDE Endorsement (when added to CU Denver's graduate teacher education licensure program)	CDE Endorsement Only	MA & CDE Endorsement	MA & CDE Endorsement (when added to CU Denver's graduate teacher education licensure program)	CDE Endorsement Only
Required		Required	Required	Required	Required	
LCRT 5810 - Wksp: Lang Acq & Development	Required	Required	Required	Required	Required	Required
LCRT 5010 - Foundations of Language	Required	Required	Required	Required	Required	Required

LCRT 5710 - Primary Literacy: Pre-3rd Grade	Required	Required	Required			
LCRT 5720 - Writing: Process, Development, and Teaching Grades 3-12	Required	Required	Required	Required	Required	Required
LCRT 5730 - Language and Literacy Across the Curriculum	Required		Required	Required		Required
Children's literature course, per advisor approval	Select one	Select one	Select one			
LCRT 5201 - Adolescent Literature				Required	Required (<i>waived if taken as part of English Licensure</i>)	Required
LCRT 6910 - Seminar and Practicum in Literacy and Language, K-6	Required	Required	Required			
LCRT 6911 - Seminar and Practicum in Literacy and Language, 7- 12+				Required	Required	Required
LCRT 5055 - Linking Assessment and Instruction in Language and Literacy	Required	Required	Required	Required	Required	Required
LCRT 6915 - Seminar and	Required	Required		Required	Required	Required

Practicum in Literacy Professional Development						
Core course in Research and Evaluation Methodology - see list below	Select one	5080		Select one	5080	
Interdisciplinary core course - see list below	Select one			Select one		
Graduate-level School of Education and Human Development elective				Select one		
Portfolio	Required	Required		Required	Required	
PLACE Exam	Required	Required	Required	Required	Required	Required
Total Semester Hours	36	27	27	36	27	27

Secondary English Education Option

The master's program in secondary English education is designed to enhance the preparation of middle and high school English/language arts teachers. Students complete course work in language development, assessment and field experiences. With the help of their advisor, they also select specific courses from the English Department or within the School of Education and Human Development that provide a well-rounded repertoire of knowledge and skills to fulfill the needs of an English educator. Special consideration is given to working with diverse ethnic populations.

Program Requirements

To earn a master of arts degree in curriculum and instruction with an emphasis in secondary English education, students must complete the following:

- 30 graduate semester hours in English education
- 6 graduate semester hours of core courses
- performance-based assessments that culminate in a portfolio finalized in the last semester of the program as fulfillment of the MA comprehensive exam requirement

Each student's course plan is developed in conjunction with his/her advisor. Please review www.ucdenver.edu/education/englished for recommended course sequence.

LCRT 5055 - Linking Assessment and Instruction in Language and Literacy Semester Hours: 3

LCRT 5201 - Adolescent Literature Semester Hours: 3

LCRT 5200 - Theory and Methods of English Education Semester Hours: 3

LCRT 5810 - Wksp: Lang Acq & Development Semester Hours: 3

LCRT 5010 - Foundations of Language Semester Hours: 3

LCRT 6911 - Seminar and Practicum in Literacy and Language, 7-12+ Semester Hours: 3

Research and Evaluation Methodology core course (see list below).

Interdisciplinary core course (see list below).

Four electives, per advisor approval, from the English department and/or the School of Education & Human Development. The following are recommended:

LCRT 5720 - Writing: Process, Development, and Teaching Grades 3-12 Semester Hours: 3

-OR-

ENGL 5110 - Denver Writing Project Semester Hours: 3

Courses in working with English language learners and in instructional technology may also be helpful. For a technology course, please contact the professor about prerequisite knowledge.

Total: 36 semester hours

Program Requirements--When Added to CU Denver's Graduate Teacher Education Licensure Program

MA in curriculum and instruction with emphasis in secondary English education, when added to CU Denver's graduate teacher education licensure program:

- 18 graduate semester hours
- performance-based assessments that culminate in a portfolio finalized in the last semester of the program as fulfillment of the MA comprehensive exam requirement

Each student's course plan is developed in conjunction with his/her advisor. Please review www.ucdenver.edu/education/englished for recommended course sequence.

FNDS 5050 - Critical Issues in American Education Semester Hours: 3

-OR-

SPED 5300 - Collaborating in Schools and Communities Semester Hours: 3

RSEM 5080 - Research In Schools Semester Hours: 3

Four electives, per advisor approval, from the English Department and/or the School of Education and Human Development. The following are recommended:

LCRT 5720 - Writing: Process, Development, and Teaching Grades 3-12 Semester Hours: 3

-OR-

ENGL 5110 - Denver Writing Project Semester Hours: 3

Courses in working with English language learners and in instructional technology may also be helpful. For a technology course, please contact the professor about prerequisite knowledge.

Total: 18 semester hours

Core Courses

Research and Evaluation Methodology

RSEM 5000 - Orientation to Research and Measurement in Education Semester Hours: 3

RSEM 5050 - Classroom Assessment Semester Hours: 3

RSEM 5080 - Research In Schools Semester Hours: 3

RSEM 5100 - Basic Statistics Semester Hours: 3

RSEM 5120 - Introduction to Research Methods Semester Hours: 3

RSEM 5110 - Introduction to Measurement Semester Hours: 3

Interdisciplinary

EPSY 5100 - Advanced Child Growth and Development Semester Hours: 3

EPSY 5140 - Advanced Adolescent Growth and Development Semester Hours: 3

EPSY 5220 - Adult Learning and Education Semester Hours: 3

EPSY 6200 - Human Development Over the Life Span Semester Hours: 3

FNDS 5050 - Critical Issues in American Education Semester Hours: 3

FNDS 5420 - History and Philosophy of Education: Twentieth Century America Semester Hours: 3

LCRT 5140 - Multicultural Education Semester Hours: 3

LCRT 5150 - Culture of the Classroom Semester Hours: 3

CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdns Semester Hours: 3

CLDE 5820 - Techniques in Teaching English as a Second Language Semester Hours: 3

Cumulative Portfolio

The MA portfolio counts as the comprehensive exam for the master's degree. The portfolio is an accumulation of the performance based assessments completed during program courses and reflects on the student's development over the course of the degree program. Reading and writing students must include confirmation of Reading Teacher PLACE exam registration in their portfolios. Information about the PLACE is online at www.place.nesinc.com.

Course Scheduling

During the fall and spring semesters, most university courses are offered in the late afternoon and evening and meet for three hours once a week over a 16-week semester. Some alternative course schedules are available, such as meeting on five Friday-evening/all-day Saturday combinations. In the summer semester, three- to eight-week sessions are offered, and courses may be in the morning, afternoon or evening.

Planning

For practicing full-time teachers, we recommend taking one course each fall and spring semester, and up to two courses each summer. Plan carefully because courses are intended to build upon each other, and some courses are only offered once a year.

Active Status

Students must complete their programs within seven years, maintaining a GPA of 3.0. Students typically take four courses each calendar year. Failure to enroll over three contiguous semesters will result in a requirement to submit readmission materials.

Early and Adolescent Literacy Certificates

The early literacy certificate and adolescent literacy certificate each include three graduate-level courses (for a total of 9 semester hours) and are conveniently offered entirely online. They are specifically designed to help licensed teachers develop the skills necessary to reach student readers. To find out more, please visit www.ucdenver.edu/education/cpe or email cpe@ucdenver.edu.

School Library Endorsement

School Library and Instructional Leadership MA

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Website: www.ucdenver.edu/education/schoollibrary

Faculty

Information about SLIL faculty is available online at www.ucdenver.edu/education/schoollibrary.

Program Overview

The school library and instructional leadership program within the ILT master's degree program is a nationally recognized NCATE-AASL revised and approved school library media education program that leads to the Colorado Department of Education endorsement for school libraries. The program integrates information literacy standards through the use of collaborative planning, as approved by the American Association of School Libraries. Technology and library resources are seen as tools to increase student achievement by integrating the information literacy standards with the content standards of the classroom teacher. The program adheres to the constructivist theory of resource-based learning and promotes an appreciation of children's and adolescent literature. The program believes that school librarians require education as a teacher as well as a librarian, as advocated by the American Library Association and the International Association of School Libraries. As a school librarian, you will provide collaborative instruction, information access and leadership through the management of your library program and the library resources. Courses are offered in a completely online program, or a monthly Saturday cohort scheduled in communities across Colorado.

Once admitted, students begin a plan of study that typically takes about two years to complete. Consult the SLIL website for more information about specific plans of study, course offerings and expectations of cohort groups.

Admission Requirements

Admission decisions are based on undergraduate and graduate grades, external letters of recommendation and fit with the program as reflected in a letter of intent. In some cases, results of a test (GRE) are also required. Prospective students should consult the SLIL program website for complete admission procedures and requirements.

Professional Expectations

All students in the SLIL program are expected to show a strong commitment to the program and to maintain high academic, professional and ethical standards. Inappropriate or unprofessional conduct is cause for discipline or dismissal from the program.

Technology Expectations

The SLIL program uses computers and related technologies either as a focus or a tool for learning. Students are expected to obtain an e-mail account and check it frequently. In addition

to on-campus facilities, SLIL students need convenient access to Internet-connected computers off campus, either at their place of work or at home. In addition to textbooks, software purchases may be required or recommended for specific classes.

Program Requirements

School library students also have a choice between endorsement-only and full master's programs. The master's program requires a minimum of 36 graduate semester hours. Students complete a plan of study consisting of courses and professional field experience. To receive Colorado teacher endorsement, students are required to pass the PLACE test in school library. This is a Colorado Department of Education requirement.

An Example of Two-Year Plan for School Library Program

Courses are offered only in certain semesters and courses should be taken in a particular sequence based on when you start the program. Advising is required prior to enrolling in a course, even as a non-degree student, in order to ensure the most effective course sequencing and availability of courses.

Typical First Year

Fall	Spring	Summer
SCHL 5530 - Foundations of School Librarianship * LCRT 5790 - Children's Literature Through the Ages ***	SCHL 5020 - Collection Development	SCHL 5110 - Integrating Instructional Technology Practices in School Libraries (MA only) LCRT 5201 - Adolescent Literature . ***

Second Year

Fall	Spring	Summer
SCHL 5160 - Managing School Library Programs SCHL 6720 - Research In Information And Learning Technologies *** SCHL 5911 - School Library Field Experience-Elementary **	SCHL 5030 - Information Literacy and Reference SCHL 5912 - School Library Field Experience-Secondary **	SCHL 5040 - Information Storage and Utilization SCHL 6999 - Leadership and Practice in School Libraries (MA Only)

* SCHL 5530 Foundations in School Librarianship should be taken as the first course in your program.

** 80 hours of field experience hours are required. Field experience may be completed over the course of a year; online seminar hours will be completed during the field experience timeframe. Field experiences are completed within a pre-approved school library. See Field Experience Policy for more information.

*** LCRT 5201; LCRT 5790; and SCHL 6720 are offered on-campus in other semesters as well.

Comprehensive Examination for All SLIL Students

The comprehensive exam consists of a professional portfolio where in students demonstrate program competencies through work products and related accomplishments. The portfolio is created throughout the student's program and submitted for faculty review the final semester. For more information, see the ILT website. For complete details about the SLIL program and endorsement requirements, see the ILT website at www.ucdenver.edu/education/schoollibrary.

Undergraduate Certificate Programs

Applied German Language Skills Undergraduate Certificate

Certificate Description

The undergraduate certificate in applied German language skills is designed for students of any discipline who wish to acquire and demonstrate to potential employers that they possess a fluid working knowledge of the German language and understanding of the cultures in which German is spoken. The completion of the requirements for this certificate can also serve as a means for nondegree-seeking professionals to develop a working competency in the German language and culture for use in such areas as international business, education, genealogy, transatlantic travel, academic research, translation and many other fields.

Admission

All currently enrolled students at CU Denver (undergraduate or graduate) in good standing (including nondegree-seeking students) are eligible for admission into the program. Any student who already possesses an undergraduate degree is also qualified for admission into the program, but must apply to the university as a nondegree-seeking student. Students working toward a baccalaureate degree who are currently enrolled in a college-level institution other than CU Denver are also eligible for certification.

Course Requirements

Twenty-four (24) semester hours of course work with CU Denver faculty (15 of which must be upper division), distributed as follows:

German Language Skills (15 credit hours): Students must complete a minimum of 15 semester credit hours of upper-division German language skills courses. These courses are defined as those areas of study in which grammar, vocabulary, pronunciation and/or communicative abilities in German are the primary focus of instruction. Up to six credit hours of upper-division German skills courses may be applied as transfer credit from outside, college-level institutions. Alternately, students may apply up to nine credit hours of officially recognized study abroad credit toward this requirement.

German Culture (9 credit hours): Students must complete a minimum of nine semester credit hours of German culture courses where the primary focus of instruction addresses any facet of Austrian, German and/or Swiss culture. These courses may be completed at any level (lower or upper division as well as graduate) and in any combination of disciplines, provided that the student supplies evidence that a significant portion of each course is devoted to Austrian, German and/or Swiss culture. This includes but is not limited to history, philosophy, political science, literature (in German or in translation) and other German cultural topics. Up to three credit hours of culture courses may be applied as transfer credit from outside, college-level institutions. Alternately, students may apply up to six credit hours of officially recognized, documented university-level course work (or the equivalent) in a German-speaking country.

Proficiency Exam: Successful completion of an internationally recognized German language proficiency exam. At any point prior to the awarding of the certificate, students must submit documentation that they have passed an internationally recognized German language skills examination. Such proficiency exams (some of which are administered locally in Denver and Boulder) include but are not limited to the TestDaF (Test Deutsch als Fremdsprache), Zertifikat Deutsch (ZD), Zertifikat Deutsch für den Beruf (ZDfB) or Prüfung Wirtschaftsdeutsch (PWD). Students must receive approval from German faculty at CU Denver to ensure that their exam scores are valid and applicable toward certification.

Students must obtain approval from CU Denver German faculty for all of the above and maintain a minimum 3.0 GPA in all course work applied to the certificate.

Transfer Credit

A significant portion of the certificate program is based on language proficiency. Consequently, students who have developed language skills through course work at institutions outside of CU Denver, including study abroad, may apply a limited number of previously earned semester hours toward the program. Please make an appointment with an advisor in the department to discuss details. All transfer credits must be approved by CU Denver German faculty.

Application of Course Work

The course work applied toward certification is meant as a proficiency requirement and not as a total semester hour amount. As a result, students who are working toward a degree may apply course work in German certification as credit toward other programs such as a minor, general education requirements or their major. Students are encouraged to inform their major advisor that they are working toward certification in German for help in coordinating their overall academic curriculum.

Further Information

Students are encouraged to hold a personal conference with a departmental advisor before applying to the certificate program. Phone 303-556-4893 for contact information.

Applied Statistics Undergraduate Certificate

Coordinator: Stephanie Santorico:

Telephone: 303-556-2547

E-mail: Stephanie.Santorico@ucdenver.edu

Web site:

http://www.ucdenver.edu/academics/colleges/CLAS/Departments/math/program_info/statisticscertificate/Pages/UndergraduteStatsCertificate.aspx

Entrance Requirements

All undergraduate students in good standing (including non-degree seeking students) will be admitted to the program. For students in the College of Liberal Arts and Sciences, this requires a cumulative grade point average of 2.0 or above. Some mathematical background (including calculus and linear algebra) is recommended.

To apply, see Undergraduate Applied Statistics Certificate Application

Curriculum

There are three parts to the requirements:

Required Courses

- MATH 2830 - Introductory Statistics

Basic Methods (choose one):

- MATH 4820 - Statistics
- MATH 4830 - Applied Statistics

Advanced Methods (choose one):

- MATH 4387 - Regression Analysis, Modeling and Time Series
- MATH 4394 - Experimental Designs

Total: 9 Hours

Elective (choose one):

- MATH 4101 - Applied Statistics Using SAS and SPSS I
or any statistics course in the math department at the 4000 level or higher
- ECON 4150 - Economic Forecasting
- ECON 4811 - Introduction to Econometrics
- GEOG 4770 - Applied Statistics for the Natural Sciences
- GEOL 4770 - Applied Statistics for the Natural Sciences
- SOCY 5183 - Seminar: Quantitative Data Analysis
Equivalent course pre-approved by the certificate coordinator

Total: 3 Hours

Project (1 Hour)

An independent data analysis project with a report and presentation to demonstrate proficiency with data analysis techniques and a statistical computing software package. Enroll for one hour of MATH 4840 (Independent Study) or in an equivalent course pre-approved by the certificate coordinator.

Certificate Total: 13 Hours

Grade Requirements

Students must maintain a 3.0 GPA or above in these courses with no credit given for courses with grades below *B-*.

Residency Requirements

Since a certificate is a University of Colorado Denver certification of a student's specialized knowledge in an advanced subject area, all courses in the certificate program are expected to be taken in residency at the University of Colorado Denver.

Biochemistry Certificate

A grade of C (2.0, not C-) or better in each of the Prerequisites is required, although these courses do not have to be completed at CU Denver. The Required Courses including electives must be completed at CU Denver with a grade of C (2.0, not C-) or better in each class, and a minimum GPA of 2.7 among the Required Courses including electives counted toward the Certificate.

Certificate Requirements

Prerequisites

(Courses do not have to be completed at CU Denver)

- 2 semesters General Chemistry, with labs
- 2 semesters General Biology, with labs
- 2 semesters Organic Chemistry, with at least 1 semester lab

Required Courses

(14-16 credits)

- CHEM 4810 - General Biochemistry I
-OR-
- CHEM 3810 - Biochemistry
- CHEM 4820 - General Biochemistry II
- BIOL 3611 - General Cell Biology

Electives

(Choose 2 of the following)

- CHEM 3011 - Inorganic Chemistry
- CHEM 3111 - Analytical Chemistry
- CHEM 4121 - Instrumental Analysis
- CHEM 4511 - Physical Chemistry I
- CHEM 4521 - Physical Chemistry II
- CHEM 4828 - Biochemistry Lab
3-credit internship or independent study in biochemistry, with prior approval
- PHYS 3151 - Biophysics Outlook I
-and-
- PHYS 3161 - Biophysics Outlook II
(these two 1-credit courses together fulfill one elective requirement)
- PHYS 3451 - Biophysics of the Cell
- BIOL 3124 - Introduction to Molecular Biology
-OR-
- BIOL 4128 - Topics in Molecular Biology

- BIOL 3225 - Human Physiology
- BIOL 3832 - General Genetics
- BIOL 4125 - Molecular Biology Laboratory
- BIOL 4126 - Molecular Genetics
- BIOL 4144 - Medical Microbiology
- BIOL 4064 - Advanced Cell Biology
- BIOL 4068 - The Cell Cycle
- BIOL 4550 - Cell Signaling
- Other CHEM 4000-level advanced biochemistry lecture courses, PHYS 3000/4000-level biophysics courses, and BIOL 4000-level lecture courses with a molecular emphasis may be added to this list in the future, as such courses become offered.

Biotechnology Certificate

To serve the needs of students who wish to obtain recognition for the acquisition of specialized skills in biology and to prepare students for graduate school, health careers and jobs in industry, the Department of Integrative Biology offers a certificate program in biotechnology. Upon completion of the required courses (21 to 22 semester hours), including independent study or internship, the student will be awarded a certificate and have the biotechnology certificate noted on their transcript. The certificate may be completed in addition to an undergraduate or graduate degree or as a stand-alone certificate. Click on [Biotechnology Certificate](#) for a complete description.

Cultural Diversity Studies Undergraduate Certificate

The undergraduate certificate in cultural diversity studies is designed to appeal to undergraduate students with a background in any major. It will allow students to demonstrate to potential employers that they possess the multicultural skills and knowledge necessary to succeed in the workplace. Students will enroll in department courses that focus on the historical context in which race and culture have emerged in the United States.

This certificate is also targeted to nondegree-seeking professionals who seek to acquire multicultural knowledge and the skills necessary to ensure their success in professional environments. Students will be encouraged to think critically about race and race relations. Their expanded understandings of the implications of race and culture in work environments will ensure employers that they offer the highest quality employees opportunities in employment or advancement.

A certificate in cultural diversity studies offers students an enduring intellectual value based on classic articles, book excerpts and scholars who have shaped the study and understanding of race and ethnicity in contemporary society. Our courses provide the opportunity for students to encounter many of the greatest thinkers in race and ethnicity firsthand. Course curriculum includes carefully edited selections from the works of the most distinguished observers of race and ethnicity, past and present. Students will appreciate the broad range of coverage, the logic of course organization and the accessibility of material covered.

The undergraduate certificate in cultural diversity studies requires 12 semester hours (four courses).

Certificate Requirements

Required Course

- ETST 2000 - Introduction to Ethnic Studies

Total: 3 Hours

Electives

Choose three courses from any ethnic studies department courses, including the following:

- ETST 2155 - African American History
- ETST 2294 - Race and the Media
- ETST 3254 - Race and Ethnicity in the Inner City
- ETST 3297 - Social History of Asian Americans
- ETST 3396 - History of the American Indian
- ETST 3704 - Culture, Racism and Alienation
- ETST 4558 - Chicano and Latino Politics

Total: 9 Hours

Certificate Total: 12 Hours

There are crosslisted courses in a variety of departments, including history, political science and sociology. Any crosslisted course is acceptable. You must register for it under ETST numbers. A complete listing of department offerings and crosslisted courses can be obtained every semester from the ethnic studies department web page or by calling our office at 303-315-3616 for a copy.

A minimum grade of *B-* must be earned in each of the four courses completed as part of the certificate. All credits for the certificate must be earned at CU Denver.

Additional information about the undergraduate certificate in cultural diversity studies may be obtained from ethnic studies Director Donna Langston, Lawrence Street Center, 480, 303-315-3616, Donna.Langston@ucdenver.edu.

Democracy and Social Movements Undergraduate Certificate

Program Advisor: Lucy McGuffey

Office: King Center, 522

Telephone: 303-556-2436

E-mail: lucy.mcguffey@ucdenver.edu

The Democracy and Social Movements (DSM) certificate program in political science introduces students to current research and practice concerning the complex interplay between social movements and the processes for initiating and consolidating democracies. While contentious political activities have historically contributed to democratization, they have also led to repression, ethnic conflict and substantive human rights violations. Among the several DSM issues requiring scholarly investigation are:

- Viable ways to contest authoritarian regimes;
- The means for constituting a cohesive civil society after a civil war or revolution;
- The relationships between social equality, distributive justice and democracy;
- The relative efficacy of violence and of nonviolent strategies to institute and sustain regime change;
- The challenges of peacebuilding, transitional justice and democratization in societies torn by internal conflict;
- The growth of transnational social movements in response to globalization;
- The contextual factors determining the specific character of any social movement and of democratic regimes;
- The means by which democratic regimes are consolidated and deepened; and
- The ways in which democratization processes and social movements influence law and public policy, public discourse and culture, the use and design of public/private spaces and the socio-economic outcomes.

Students in the DSM program examine relevant theoretical and methodological literature in these aforementioned areas and apply it to current circumstances by taking specified courses in each of the four major subfields of political science: American, comparative, international politics and political theory.

The DSM certificate program is designed to appeal to persons who want to focus their studies on the recent state of democratization processes around the world, including explorations of the ways in which social movements can catalyze or even threaten those democratization processes. Students in the program will explore how globalization is simultaneously fragmenting and uniting the globe, enhancing wealth and impoverishing people, consolidating human rights regimes and transgressing them and provoking questions about the boundaries of our ethical commitments and the means whereby communities strive for democracy and justice.

By permitting students to devise a curriculum that integrates academic and experiential, the DSM program should enhance students' scholarship, civil engagement and prospects for further study and employment in rapidly growing fields like international/community development, the non-governmental organization sector, civic education/engagement and human rights.

Requirements

The undergraduate certificate requires five program courses (15 credits, with at least 6 credits at the upper division level), one in each of the four political science subfields listed below and the capstone seminar, as well as completion of an appropriate experiential learning requirement. Like the existing departmental experiential learning requirement for majors, this requirement can be fulfilled without taking course credits, for example, by documenting the inclusion of significant experiential learning/field work in regular course work, or by documenting significant relevant field work in one's professional life.

All courses for the certificate must be taken in residency at CU Denver, and completed with a grade of C or higher. A minimum GPA of 2.0 is required for the undergraduate certificate. Topics courses approved by the program advisor can also satisfy course requirements.

All students, whether working toward a degree or as a non-degree student, are eligible for the certificate.

Choose one course from each of the subfields below:

Note: Some courses appear more than once in different subfields; students should choose four different subfield courses, not count one toward two subfields.

International Politics

- PSCI 4216 - International Politics: Human Rights
- PSCI 4225 - Democracy and Democratization
- PSCI 4265 - Social Justice and Globalization
- PSCI 4808 - Strategies of Peacebuilding

Comparative Politics

- PSCI 4146 - Indigenous Politics
- PSCI 4224 - Dictatorships in 21st Century
- PSCI 4225 - Democracy and Democratization
- PSCI 4555 - International Women's Resistance
- PSCI 4808 - Strategies of Peacebuilding

American Politics

- PSCI 3035 - Political Movements: Race and Gender
- PSCI 3914 - The Urban Citizen

- PSCI 4074 - Urban Politics

Political Theory

- PSCI 4207 - Theories of Social and Political Change
- PSCI 4265 - Social Justice and Globalization

Capstone Course

- PSCI 4206 - Social Movements, Democracy and Global Politics

Total: 15 Hours

Ethics Undergraduate Certificate

The certificate in ethics is designed for students currently enrolled in a degree program as well as nondegree students.

A total of 15 semester hours is required for an ethics certificate. Students are required to write a capstone paper in an area of ethics directly related to their career and/or field of study (PHIL 3840).

Certificate Requirements

- PHIL 1020 - Introduction to Ethics and Society: The Person and the Community

Choose four:

- PHIL 3002 - Ancient Greek Philosophy
- PHIL 3150 - History of Ethics
- PHIL 3200 - Social and Political Philosophy
- PHIL 3250 - Business Ethics
- PHIL 3500 - Ideology and Culture: Racism and Sexism
- PHIL 3840 - Independent Study
- PHIL 4150 - Twentieth Century Ethics
- PHIL 4242 - Bioethics

Certificate Total: 15 Hours

Geographic Information Science Undergraduate Certificate

GISci Certificate Advisor: Peter Anthamatten

Office: North Classroom, 5030-B

Telephone: 303-556-4277

E-mail: peter.anthamatten@ucdenver.edu

The intention of this certificate is to provide undergraduates with a mechanism for demonstrating capabilities in spatial techniques in the social and/or physical sciences. The focus of this certificate is on a broad array of geotechniques, including geographic information systems, remote sensing, cartography and statistics, which give students additional analytical skills to take into the workplace or on to graduate school. This certificate is designed for geography majors as well as nonmajors.

Upon successful completion of the certificate, students will be able to:

- understand basic theoretical underpinnings of spatial analysis
- apply geo-spatial technologies to real-world problems
- have a basic knowledge of how to operate at least three types of software used for spatial analysis

Students must have a 3.0 GPA in all approved geographic technology courses to earn the certificate. The certificate will be awarded when the student graduates with the bachelor's degree. For those who already have a bachelor's degree, the certificate will be awarded upon completion of the program.

Application

Students may begin the program in any semester or during the summer by making arrangements with the GISci certificate coordinator, and completing and signing the **Application for GISci Certificate**. This should be done once you have elected to pursue the certificate. Those who are not current students must apply for non-degree admission (go to Information for Undergraduate Students and click on [Nondegree Students](#) link at top of page) before registering for any classes.

Curriculum

To obtain the certificate, students must complete four core courses, one elective, and a 1-hour independent study, totaling 16 hours. Although the four core courses may be taken in any order, it is advisable to begin with GEOG 4081, Introduction to Cartography and Computer Mapping, since this course familiarizes students with many key concepts used in the other classes. Of the four core requirements, only the statistics class has prerequisites, including algebra and introductory calculus. Because of the technical nature of the GIS and remote sensing course work, however, some mathematical experience is desirable prior to beginning the program. All core courses are offered on a yearly basis. Any alterations to the program MUST be approved by the GISci Coordinator.

Course Requirements

Core Courses:

- GEOG 4081 - Cartography and Computer Mapping
 - GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing
 - GEOG 4080 - Introduction to GIS
 - GEOL 4770 - Applied Statistics for the Natural Sciences
- OR** equivalent course approved by the GISci Certificate Coordinator

Total: 12 Hours

Lab Requirement (to be taken at the end of the program):

Independent Study in GEOG or GEOL with a geographic technology professor (Moreno, Thomas, Wyckoff, or instructor approved by GISci coordinator). The independent project must also demonstrate a proficiency in GIS in the student's area of interest (1 credit hour) **or** take CVEN 5386. GIS Laboratory (3 credit hours). See below for course numbers/descriptions.

- GEOG 4840 - Independent Study: GEOG
- GEOL 4840 - Independent Study: GEOL
- CVEN 5386 - GIS Laboratory

Total: 1-3 Hours

Elective (choose one from the following):

- GEOG 4070 - Remote Sensing II: Advanced Remote Sensing
 - GEOG 4085 - GIS Applications for the Urban Environment
 - GEOG 4090 - Environmental Modeling with Geographic Information Systems
 - GEOG 4095 - Deploying GIS Functionality on the Web
 - GEOG 4235 - GIS Applications in the Health Sciences
 - CVEN 5382 - GIS Spatial Database Development
 - CVEN 5385 - GIS Relational Database Systems
- OR** an elective approved by the GISci Certificate Coordinator.

Total: 3 Hours

Certificate Total: 16-18 Hours

Mediation Undergraduate Certificate

Mediation entails a third-party intervention designed to assist parties in managing conflict. Trained mediators are impartial process experts who learn to utilize communication and conflict philosophy and theories to increase the probability of more favorable outcomes between parties in conflict. The undergraduate certificate is designed for communication majors or any student interested in developing practical skills in alternative dispute resolution. The courses in this certificate focus on alternative dispute processes that include strategies for managing conflict in personal, public, legal, political, governmental and corporate contexts.

Certificate Requirements

The undergraduate certificate in mediation requires 12 semester hours (four courses).

Core Courses

Students must complete the following core course:

- COMM 4262 - Mediation
In addition, students must complete at least one of the following two courses (students who take both classes take one elective rather than two; students who take only one must select two electives):
- COMM 4255 - Negotiations and Bargaining
- COMM 4260 - Communication and Conflict

Total: 9 Hours

Elective

Students choose one or two additional classes from among the following:

- COMM 2140 - Argumentation
- COMM 3271 - Communication and Diversity
- COMM 4240 - Organizational Communication
- COMM 4282 - Environmental Communication
- COMM 4681 - Communication Issues in Trial Court Practices and Processes

Total: 3 Hours

Certificate Total: 12 Hours

Students may be allowed to take courses other than those on this list to fulfill the requirements for the certificate, if those courses better fit their professional goals. Requests for approval of different courses should be made in writing to Larry Erbert, Plaza 102-D. Requests should include an explanation of the relevance of the course to be substituted to the student's professional goals and the certificate. Such courses must be taught in the Department of Communication at the University of Colorado Denver. Only one course may be substituted.

Grade and Residency Requirements

A grade of *B* or higher must be earned in each course completed as part of the certificate (a grade of *B-* is not acceptable). All of the credit hours for the certificate must be earned at the University of Colorado Denver.

Public Relations Undergraduate Certificate

Public relations has been defined as the management function that entails planning, research, publicity, promotion and collaborative decision-making to help any organization's ability to listen to, appreciate and respond appropriately to those persons and groups whose mutually beneficial relationships the organization needs to foster as it strives to achieve its mission and vision. The undergraduate certificate in public relations is designed for undergraduate communication majors who wish to demonstrate to potential employers that they possess skills and knowledge in the area of public relations. It also is useful for non-degree-seeking working professionals without bachelor's degrees who plan to enter or re-enter the workplace and who seek to acquire the skills and knowledge necessary to perform public relations in their professional environments.

Certificate Requirements

The undergraduate certificate in public relations requires 12 semester hours (four courses). Students must complete the following three courses:

- COMM 4635 - Principles of Public Relations
- COMM 4640 - Advanced Public Relations
- COMM 4665 - Principles of Advertising

Additionally, students choose one course from the following:

- COMM 3680 - Mass Communication Skills
- COMM 4240 - Organizational Communication
- COMM 4805 - Graphics

Total: 12 Hours

Students may be permitted to take courses other than those listed above to fulfill the requirements for the certificate if those courses fit their professional goals better (CMMU 4635, Principles of Public Relations may not be substituted, however). Requests for approval of substitute courses, including an explanation for the substitution, must be made in writing to Hamilton Bean.

Grade and Residency Requirements

A grade of *B* must be earned in each course completed as part of the certificate. All of the credit hours for the certificate must be earned at the University of Colorado Denver.

Application Procedures and Additional Information

Students should apply for the undergraduate certificate in public relations after the completion of the required courses. To apply, students must complete the certificate application and return it to Dr. Hamilton Bean in his mailbox in room 102-A of the Plaza Building or mail to Department of Communication; P. O. Box 173364, Campus Box 176; University of Colorado Denver; Denver, CO 80217-3364. The approved certificate is mailed to the student.

Students who are not already enrolled at CU Denver must also complete an Application for Non-Degree Admission prior to registering for courses. The form should be returned to the Office of Admissions in the annex of the CU Building.

Additional information about the undergraduate certificate in public relations may be obtained from Dr. Hamilton Bean, Department of Communication, Plaza 102-Q, 303-352-3876, Hamilton.Bean@ucdenver.edu.

Scientific Foundations of Technical Innovation Certificate

The goal of this certificate is to give students and working professionals an opportunity to broaden their technical knowledge while contributing to regional economic development. Two real-world projects—one for a client and one for the student’s own pursuits—are combined with a series of six short courses to provide both context and substance for gaining knowledge needed to create technical prototypes. The model is based on the method by which most physical science graduate students learn technical domains on a “just-in-time” basis. It is also a method by which many corporations quickly bring new project team members up to speed on project knowledge. Entry into the certificate program requires prior completion of two semesters of calculus-based physics and two semesters of calculus **or** permission of the certificate advisor.

Undergraduate required courses

- PHYS 4850 - Physics for Design and Innovation I
- PHYS 4400 - Topics in Scientific Instrumentation and Laboratory Methods
Choose six 1-semester-hour short courses out of a larger list of offered topics; the specific sequence must be approved by the certificate advisor
- PHYS 4852 - Physics for Design and Innovation II

Total: 12 Hours

Graduate required courses

Graduate versions of the courses (5000-level) require an undergraduate degree and additional work on technical analysis or connection to professional practice.

- PHYS 5850 - Physics for Design and Innovation I
- PHYS 5400 - Topics in Scientific Instrumentation and Laboratory Methods
Choose six 1-semester-hour short courses out of a larger list of offered topics; the specific sequence must be approved by the certificate advisor.
- PHYS 5852 - Physics for Design and Innovation II

Total: 12 Hours

Technical and Professional Communication Undergraduate Certificate

The undergraduate certificate in technical and professional communication is designed for several types of students:

- working adults who are employed or who are seeking employment in the field of technical communication but who are not seeking an undergraduate degree
- students who are majoring in communication and want to enhance their technical communication abilities
- students pursuing a major other than communication who want to enhance their technical communication abilities

Students enrolled in this certificate receive state-of-the-art training in core professional skills, including technical writing, technical editing and web design. The certificate is especially helpful for those who plan to enter (or re-enter) the workplace and who want to acquire the knowledge and skills necessary to contribute to technical documentation projects.

Certificate Requirements

The undergraduate certificate in technical and professional communication requires 12 semester hours (four courses), as follows:

Required Core

- COMM 3120 - Technical Communication

Electives

Students must complete any three of the following courses:

- COMM 4120 - Writing Technical Reports
- COMM 4290 - Web Design
- COMM 4300 - Multimedia Authoring
- COMM 4410 - Science Writing
- COMM 4620 - Health Risk Communication
- COMM 4681 - Communication Issues in Trial Court Practices and Processes

Total: 12 Hours

Grade and Residency Requirements

A grade of *B* or higher must be earned in each course completed as part of the Certificate (a grade of *B-* is not acceptable). All of the credit hours for the certificate must be earned at the University of Colorado Denver.

Application Procedures

Students should apply for the undergraduate certificate in technical and professional communication **after the completion of the required courses**. To apply, students must complete the certificate application.

The form should be returned to Jim Stratman, located in the Plaza Building, room 102-F, or put in his mailbox in room PL 102-A, or mailed to him at the Communication Department; Campus Box 176, P. O. Box 173364; Denver, CO 80217-3364. Once the certificate is processed, it will be mailed to the student unless other arrangements have been made by the student to pick up the certificate from the program assistant in PL 102C.

Students need to be registered at the University of Colorado Denver as full-time students, part-time students or as non-degree students in order to register for these classes. To apply as a non-degree student, fill out the Application for Non-Degree Admission. Return the form, along with your fee, to the Office of Admissions in the Annex of the CU Building, located at the corner of 14th and Larimer.

Additional Information

Additional information about the undergraduate certificate in technical and professional communication may be obtained from the director of the technical communication program, Jim Stratman, Department of Communication, Plaza Building, room 102-F, 303-556-2884, James.Stratman@ucdenver.edu

Graduate Certificate Programs

Applied Statistics Graduate Certificate

► Graduate School Rules apply to this program.

Coordinator: Stephanie Santorico:

Telephone: 303-556-2547

E-mail: Stephanie.Santorico@ucdenver.edu

Web site:

http://www.ucdenver.edu/academics/colleges/CLAS/Departments/math/program_info/statisticscertificate/Pages/GraduateStatisticsCertificate.aspx

Entrance Requirements

Students are expected to have a bachelor's degree and be admitted to the graduate school as either a degree-seeking or non-degree seeking student. Students are expected to have completed an introductory statistics course (such as MATH 2830 or the equivalent) or an introductory course in probability. At least one semester of calculus and a course containing linear algebra are also recommended.

To apply, see Graduate Applied Statistics Certificate Application

Curriculum

There are three parts to the requirements:

Required Courses

Basic methods (choose one):

- MATH 4820 - Statistics
- -OR- MATH 4830 - Applied Statistics
- -OR- MATH 5320 - Statistics

Advanced methods (choose two):

- MATH 5387 - Regression Analysis, Modeling and Time Series
- -AND/OR- MATH 5394 - Experimental Designs
- -AND/OR- MATH 6360 - Exploratory Data Analysis

Total: 9 Hours

Elective (choose one):

Any statistics course in the math department at the 5000 level or higher

- ECON 5150 - Economic Forecasting
- ECON 5813 - Econometrics I
- ECON 5823 - Econometrics II
- ENVS 5600 - Applied Statistics for the Natural Sciences

- GEOL 5770 - Applied Statistics for the Natural Sciences
- PSYC 7713 - Advanced Statistics
- SOCY 5183 - Seminar: Quantitative Data Analysis
Equivalent course pre-approved by the certificate coordinator

Total: 3 Hours

Project (1 Hour)

An independent data analysis project with a report and presentation to demonstrate proficiency with data analysis techniques and a statistical computing software package. Enroll for one hour of MATH 5840 (Independent Study) or in an equivalent course preapproved by the certificate coordinator.

Certificate Total: 13 Hours

Grade Requirements

Students must maintain a 3.0 GPA or above in these courses with no credit given for courses with grades below *B-*.

Residency Requirements

Since a certificate is a University of Colorado Denver certification of a student's specialized knowledge in an advanced subject area, all courses in the certificate program are expected to be taken in residency at the University of Colorado Denver.

Culturally Responsive Urban Education (CRUE) Graduate Certificate

Linguistically Diverse Education

Requirements for LDE Program

(Degree/Endorsement or Certificates - TESOL, CRUE, TCLD)

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Web site: www.ucdenver.edu/education/lde

Faculty

Information about faculty in this program is available at www.ucdenver.edu/education/lde. The faculty of linguistically diverse education (LDE) believe that effective teaching requires an awareness of and the ability to respond to individual differences. LDE faculty also emphasize the importance of teachers as scholars and reflective practitioners. In particular, teachers must understand how linguistic and cultural diversity affect their teaching. Two themes run throughout all program offerings. The first concerns the importance of recognizing a variety of literacies—"home" literacies, school literacy, "mainstream" literacy, first and second language literacies—and to develop teaching practices that utilize an understanding of the complexity of literacy development across language contexts. The second theme involves the meaningful use of language and literacy to improve the quality of one's life. As an approach to teaching, this theme emphasizes the creation of diverse, rich environments in which learners experience oral and written language as part of authentic tasks, and where concern for the cultural and linguistic heritage of the students is evident.

Program Options

The LDE program offers options leading to the following:

- a Master of Arts in Curriculum and Instruction
- the Colorado Endorsement for Culturally and Linguistically Diverse Education
- a Teaching English to Speakers of Other Languages (TESOL) certificate
- a Culturally Responsive Urban Education (CRUE) certificate
- a Teaching for Cultural and Linguistic Diversity (TCLD) certificate

The program is intended for:

- novice teachers who have completed their Colorado teaching credentials in CU Denver's graduate teacher education licensure program and are enrolled in the MA in curriculum and instruction with an emphasis in LDE (see 27 semester-hour option)
- veteran elementary and secondary teachers returning to graduate studies for the master's degree (36 semester hours)
- veteran elementary and secondary teachers returning to acquire Colorado endorsement credentials (24 semester hours)
- individuals interested in teaching English abroad (TESOL: 15 semester hours)

- elementary and secondary teachers who desire preparation in better meeting the needs of culturally diverse learners (CRUE: 9 semester hours)
- veteran elementary and secondary teachers returning to graduate studies for a certificate to aid them in helping their English language learners succeed (TCLD: 9 semester hours)
- individuals interested in teaching adults (MA: 36 semester hours)

The MA is a field-based professional development program involving university faculty and practicing LDE instructors in public school and intensive English settings. Courses, laboratories and practica emphasize scholarly approaches to complex problems of practice and feature interactive, collaborative and practical approaches to working with English language learners.

We advocate a sociocultural approach to issues of language and learning, acknowledging the legitimacy of linguistic and cultural differences and recognizing that academic settings represent important socializing forces in students' lives. Because of this, we emphasize the "whole learner" in our teaching and in teacher education and teacher development, understanding that individuals do not merely add a language to their repertoire of communication but make fundamental identity adjustments as they progress in their studies. For this reason, all our course work, laboratories and practica experiences are field-based, putting our program participants in contact with veteran teachers and English language learners. We draw heavily on recent scholarship in collaborative approaches to school-university partnerships and systemic school change in developing classroom methods and materials, curricula and teacher development experiences.

The MA program also provides a foundation in teaching English in a variety of contexts in the United States and abroad. Teachers who work in LDE programs or in other content areas (such as art, language arts, math, music, science, social studies or technology), but who wish to integrate LDE principles and strategies into their instruction for their English language learners, will find the MA program relevant to their interests and goals.

Course work includes language teaching methodology, language acquisition, linguistic analysis of English, multicultural foundations, assessment, literacy and other areas. This program has been developed as an advanced course of study for practicing teachers or individuals with some teaching experience.

Applicants who are new to teaching, and who wish to teach in U.S. K–12 public school settings, should inquire about the teacher education licensure program. Applicants who are new to teaching, but who do not need a teaching license (certification) because they do not wish to teach in U.S. public schools, may consider the TESOL certificate to gain initial teaching experiences before applying for the MA.

Program Requirements and Courses

To complete the LDE program and earn a master's degree and/or endorsement, or to earn a TESOL certificate, students must complete the appropriate course work as outlined in the table below.

Requirements for LDE Program (Degree/Endorsement or TESOL Certificate)					
Course	MA without CDE Endorsement in LDE	MA and CDE Endorsement in CLDE	CDE Endorsement in CLDE Only	MA and CDE Endorsement in CLDE <i>(when added to CU Denver's graduate teacher education licensure program)</i>	TESOL Certificate
CLDE 5010 - Foundations of Language, Literacy and Culture	Required	Required	Required	Required	
<i>One course from culture options:</i> CLDE 5140 - Multicultural Education CLDE 5150 - Culture of the Classroom CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdn	Select One	Select One	Select One	Select One	
CLDE 5070 - Linguistic Analysis of	Required	Required	Required	Required	Required

English: Implications for Teaching					
CLDE 5030 - Language & Literacy Acquisition Div Lrn	Required	Required	Required	Required	Required
CLDE 5820 - Techniques in Teaching English as a Second Language	Required	Required	Required	Required	Required
CLDE 5050 - Assessment & Advocacy for Diverse Learners	Required	Required	Required	Required	Required
<i>One course from field- based teaching options:</i> LCRT 5020 - Workshop in Literacy and Language Teaching CLDE 5825 - Methods and Materials of Language Teaching CLDE 5826 - Language Teaching Lab LCRT 5730 - Language and Literacy	5826 preferred	Elem: 5825 preferred Sec: 5826 preferred	Elem: 5825 preferred Sec: 5826 preferred	Elem: 5825 preferred Sec: 5826 preferred	5826

Across the Curriculum LCRT 5770 - Effective Literacy Instruction for Second Language Learners					
CLDE 5035 - Language and Literacy: Acquisition, Processes, and Cognition, Part II	Required	Required			
CLDE 6912 - Seminar and Practicum in Literacy and Language, ESL and Bilingual Education	Required	Required	Required	Required	
<i>One course from research and evaluation methodology:</i> RSEM 5050 - Classroom Assessment RSEM 5080 - Research In Schools	Select One	Select One		Select One	
<i>One course from educational psychology:</i> EPSY 5110 - Human	Select One	Select One			

Learning EPSY 5220 - Adult Learning and Education					
Graduate-level University of Colorado elective	Select One	Select One			
Cumulative online portfolio	Required	Required	Required	Required	
LDE PLACE Exam (not required for students beginning Spring 2013 or later)		Only required if beginning prior to spring 2013	Only required if beginning prior to spring 2013	Only required if beginning prior to spring 2013	
Total Semester Hours	36	36	24	27	15

Culturally Responsive Urban Education (CRUE) Certificate Requirements

Those considering the CRUE certificate must complete the following:

CLDE 5170 - Race, Class and Culture in Public Schools Semester Hours: 3

CLDE 5180 - Working with Communities and Families Semester Hours: 3

CLDE 5190 - Culturally Responsive Pedagogy and Practices Semester Hours: 3

Total: 9 Hours

This certificate is only offered as a cohort, through our district partnerships. Additional information about the CRUE certificate can be found at www.cruecenter.org/certificate.php.

Teaching for Cultural and Linguistic Diversity (TCLD) Certificate

The TCLD Certificate (formerly known as Content Instruction for English Learners (CIEL) is a graduate certificate providing a foundation in teaching content to students whose first language

is other than English. The program is designed for content-area teachers (math, science, social studies, etc.) who have English language learners in their classes. This certificate is also valuable to content area coaches or administrators who provide support for teachers with English language learners. The certificate is appropriate for public school and community college personnel.

The certificate totals nine credit hours with the specialty area in linguistically diverse education (LDE). All courses are three graduate credit hours and may be applied directly toward a full master's degree in Curriculum and Instruction with an emphasis in LDE while also fulfilling the requirements toward a Colorado Culturally and Linguistically Diverse Education Endorsement. Courses may also be applied toward the Teaching English to Speakers of Other Languages (TESOL) Certificate. Additional courses and applications are required for these programs.

The certificate may be completed in one year. Those pursuing the TCLD certificate must complete the following:

CLDE 5030 - Language & Literacy Acquisition Div Lrn

CLDE 5820 - Techniques in Teaching English as a Second Language

LCRT 5770 - Effective Literacy Instruction for Second Language Learners

The TCLD certificate is being offered only through our district partnerships.

Cumulative Portfolio of Performance Based Assessments (PBAS)

The portfolio is required for the CLDE endorsement, counts as the comprehensive exam for the master's degree and permits you to document your development over the course of your program. Portfolios are reviewed by LDE faculty members. The portfolio process is reviewed in every class as each of the PBAs is completed in the classes, helping students to update their portfolios throughout the program. For more portfolio guidelines, visit the website at <http://www.ucdenver.edu/education>, click on "Current Students" and select Linguistically Diverse Education from the "Program specific resources" drop-down menu.

PLACE Exam for Linguistically Diverse Education Endorsement

To add the endorsement to their teaching license, students beginning the program prior to Spring 2013 must pass the PLACE (Program for Licensing Assessments for Colorado Educators) exam for linguistically diverse education, secure and submit the appropriate paperwork from the Colorado Department of Education, and pay fees required for the PLACE and for the endorsement paperwork. Information about PLACE is online at www.place.nesinc.com. Students beginning Spring 2013 or later will be eligible for the Culturally and Linguistically Diverse Education Endorsement and will not be required to pass the PLACE exam to receive the CLDE endorsement.

Course Scheduling

During the fall and spring semesters, most university courses are offered in the late afternoon and evening and meet for three hours once a week over a 16-week semester. Some alternative

course schedules are available, such as meeting on five Friday-evening/all-day Saturday combinations. In the summer semester, three-to eight-week sessions are offered, and courses may be in the morning, afternoon or evening.

Planning

For practicing full-time teachers, we recommend taking one course each fall and spring semester and up to two courses each summer. Students may simultaneously complete requirements for the MA and the endorsement for culturally and linguistically diverse education (some courses are offered only once per year.)

Active Status

Students must complete their programs within seven years, maintaining a GPA of 3.0. Students typically take four courses each calendar year. Failure to enroll over three contiguous semesters will result in a requirement to submit readmission materials.

Democracy and Social Movements Graduate Certificate

► Graduate School Rules apply to this program.

Program Advisor: Lucy McGuffey

Office: King Center, 522

Telephone: 303-556-2436

E-mail: lucy.mcguffey@ucdenver.edu

The Democracy and Social Movements (DSM) certificate program in political science introduces students to current research and practice concerning the complex interplay between social movements and the processes for initiating and consolidating democracies. While contentious political activities have historically contributed to democratization, they have also led to repression, ethnic conflict and substantive human rights violations. Among the several DSM issues requiring scholarly investigation are:

- Viable ways to contest authoritarian regimes;
- The means for constituting a cohesive civil society after a civil war or revolution;
- The relationships between social equality, distributive justice and democracy;
- The relative efficacy of violence and of nonviolent strategies to institute and sustain regime change;
- The challenges of peacebuilding, transitional justice and democratization in societies torn by internal conflict;
- The growth of transnational social movements in response to globalization;
- The contextual factors determining the specific character of any social movement and of democratic regimes;
- The means by which democratic regimes are consolidated and deepened; and
- The ways in which democratization processes and social movements influence law and public policy, public discourse and culture, the use and design of public/private spaces and the socio-economic outcomes.

Students in the DSM program examine relevant theoretical and methodological literature in these aforementioned areas and apply it to current circumstances by taking specified courses in each of the four major subfields of political science: American, comparative, international politics and political theory.

The DSM certificate program is designed to appeal to persons who want to focus their studies on the recent state of democratization processes around the world, including explorations of the ways in which social movements can catalyze or even threaten those democratization processes. Students in the program will explore how globalization is simultaneously fragmenting and uniting the globe, enhancing wealth and impoverishing people, consolidating human rights regimes and transgressing them and provoking questions about the boundaries of our ethical commitments and the means whereby communities strive for democracy and justice.

By permitting students to devise a curriculum that integrates academic and experiential, the DSM program should enhance students' scholarship, civil engagement and prospects for further study and employment in rapidly growing fields like international/community development, the non-governmental organization sector, civic education/engagement and human rights.

Requirements

The graduate certificate requires three program courses and the capstone seminar [12 total credits; all must be graduate-level (5000 or above) courses]. Field work/experiential learning is encouraged and promoted throughout the graduate program, but it is not a certificate requirement.

All courses for the certificate must be taken in residency at CU Denver, and completed with a grade of *B* or higher. A minimum GPA of 3.0 is required for the graduate certificate.

All students, whether working toward a degree or as a non-degree student, are eligible for the certificate.

Choose one course from each of the subfields below:

Courses listed below are examples of courses that can be selected for the certificate, but other graduate-level courses (5000-level or above) in political science may be applied with the consent of the program advisor.

Note: Some courses appear more than once in different subfields; students should choose four different subfield courses, not count one toward two subfields.

International Politics

- PSCI 5224 - Dictatorships in 21st Century
- PSCI 5225 - Democracy and Democratization
- PSCI 5265 - Social Justice and Globalization
- PSCI 5808 - Strategies of Peacebuilding

Comparative Politics

- PSCI 5145 - Indigenous Politics
- PSCI 5224 - Dictatorships in 21st Century
- PSCI 5225 - Democracy and Democratization
- PSCI 5256 - Seminar: National Question and Self-Determination
- PSCI 5555 - International Women's Resistance
- PSCI 5808 - Strategies of Peacebuilding

American Politics

- PSCI 5094 - Seminar: Urban Politics

Political Theory

- PSCI 5265 - Social Justice and Globalization

Capstone

- PSCI 5206 - Social Movements, Democracy and Global Politics

Total: 12 Hours

Design Build Graduate Certificate

Contact: Erik (Rick) Sommerfeld

Telephone: 303-315-0008

E-mail: erik.sommerfeld@ucdenver.edu

The College of Architecture and Planning offers a graduate certificate in the emerging area of design build as an extension of the MArch program. The certificate course work totals 18 credit hours and emphasizes design build from the designer's point of view.

Certificate Requirements

Five courses totaling 18 semester hours can be applied to the MArch graduation requirements:

- ARCH 6370 - Introduction To Design Build
- ARCH 6471 - Managing Quality & Risks
- ARCH 6472 - Architecture in a Single Source Project Delivery
- ARCH 6373 - Construction in Design Build
- ARCH 6170 - Advanced Design Studio
taken with
- ARCH 6171 - Advanced Design Seminar

Total: 18 Hours

Designing E-learning Environments Graduate Certificate

The DeE certificate is an 15-semester-hour program offered entirely online that focuses specifically on the skills needed to design and facilitate online learning opportunities for learners in K–12, higher education and corporate settings. This program is perfect for educators who are not interested in a graduate degree. More information is available at www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/MASTERS/ILT/Pages/eLearning.aspx.

Sample plan for eLearning Certificate

Year 1

Fall: INTE 5660 - Designing and Teaching in eLearning Environments

Spring: INTE 5670 - Developing eLearning Instruction

Summer: INTE 5680 - Integrating Media in eLearning Environments

Comprehensive Examination for All ILT Students

The comprehensive exam consists of a professional portfolio where in students demonstrate program competencies through work products and related accomplishments. The portfolio is created throughout the student's program and submitted for faculty review the final semester.

For more information or for complete details about ILT programs, see the ILT website.

Digital Storytelling Graduate Certificate

A 9-semester-hour certificate in digital storytelling includes face-to-face workshops as well as a 4-semester-hour online course. Participants develop digital stories using nonlinear video editing programs and other presentation tools. They learn to integrate digital storytelling methods into existing courses and curricula for all ages.

Domestic Violence Concentration/Graduate Certificate

A student may choose to complete a concentration in domestic violence as part of the MCJ or MPA degree, or the domestic violence program can be completed by non-degree students as a stand-alone graduate certificate. The program on domestic violence provides an interdisciplinary perspective on crime, the formulation of laws and codes, the criminal legal system and its intersection with women and violence. Students seeking a domestic violence concentration must complete 15 semester hours related to domestic violence, which are completed via intensive workshops that meet periodically throughout a two-year period.

For more information, contact Barbara Paradiso at barbara.paradiso@ucdenver.edu.

Requirements

Students take the four specified courses below and one elective.

- PUAD 5910 - Women and Violence: A Sociological Perspective
- PUAD 5920 - Psychology of Violence Against Women
- PUAD 5930 - Battered Women and the Legal System
- PUAD 5940 - Domestic Violence Social Change and Advocacy

Total: 15 Hours

Early and Adolescent Literacy Certificates

Literacy, Language and Culturally Responsive Teaching

MA Requirements for the Reading and Writing Option and Secondary English Education Option, plus Reading Teacher Endorsement and Certificate Programs

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Websites: www.ucdenver.edu/education/literacy and www.ucdenver.edu/education/englished

Reading and Writing

Secondary English

Early and Adolescent Literacy Certificates

Faculty

Information about faculty in this program is available online at www.ucdenver.edu/education/literacy.

The faculty of literacy, language and culturally responsive teaching (LLCRT) believe that effective teaching requires an awareness of and the ability to respond to individual differences. LLCRT faculty also emphasize the importance of teachers as scholars and reflective practitioners. In particular, teachers must understand how linguistic and cultural diversity affect their teaching. Two themes run throughout all program offerings. The first concerns the importance of recognizing a variety of literacies—"home" literacies, school literacy, "mainstream" literacy, first and second language literacies—and to develop teaching practices that utilize an understanding of the complexity of literacy development across language contexts. The second theme involves the meaningful use of language and literacy to improve the quality of one's life. As an approach to teaching, this theme emphasizes the creation of diverse, rich environments in which learners experience oral and written language as part of authentic tasks, and where concern for the cultural and linguistic heritage of the students is evident.

Reading and Writing Option and Reading Teacher Endorsement

This master's program is designed for K-6 and 7-12 teachers. This program is a credentialed program meeting the Colorado Department of Education requirements for the reading teacher endorsement. Therefore, students who obtain a master's degree emphasizing reading and writing are certified to hold positions in public and private schools as special developmental and reading teachers in K-6 or 7-12. This program is also valuable for elementary and secondary teachers who wish to enhance reading and writing instruction in their classrooms.

By placing emphasis on the reading, writing and oral and visual language development of culturally, linguistically and academically diverse student populations, this master's program is at the forefront of the field. Language is approached from a socio-psycholinguistic perspective that emphasizes the learner's construction of meaning rather than the learning of isolated skills.

Importance is placed on using theory, inquiry and personal reflection to inform classroom practice. The program prepares teachers to become decision makers capable of developing learner-centered curricula where each student's reading and writing abilities are assessed to address developmental or special needs.

Curriculum

Course offerings lead to an MA degree in curriculum and instruction with an emphasis in reading and writing, as well as a reading teacher endorsement, at one of two levels: K–6 or 7–12.

Those who have completed University of Colorado Denver's graduate teacher education licensure program must earn an additional 27 semester hours to obtain the MA and endorsement. Those who completed licensure through other means must earn an additional 36 semester hours to obtain the MA and endorsement.

Teachers may add a reading teacher endorsement to an already-earned master's degree in education by taking those courses listed under the chosen endorsement level. (In the state of Colorado, the reading teacher endorsement cannot simply be added to a bachelor's degree.) Electives and core courses are not required for those seeking the endorsement only. Two additional courses must be taken in other areas specified by the Colorado Department of Education. In many cases, previous master's degree courses will satisfy this requirement.

Requirements for Reading and Writing Program (Degree/Endorsement Options)						
	ELEMENTARY (K-6)			SECONDARY (7-12)		
Course	MA & CDE Endorsement	MA & CDE Endorsement (when added to CU Denver's graduate teacher education licensure program)	CDE Endorsement Only	MA & CDE Endorsement	MA & CDE Endorsement (when added to CU Denver's graduate teacher education licensure program)	CDE Endorsement Only
Required		Required	Required	Required	Required	
LCRT 5810 - Wksp: Lang Acq & Development	Required	Required	Required	Required	Required	Required
LCRT 5010 - Foundations of Language	Required	Required	Required	Required	Required	Required

LCRT 5710 - Primary Literacy: Pre-3rd Grade	Required	Required	Required			
LCRT 5720 - Writing: Process, Development, and Teaching Grades 3-12	Required	Required	Required	Required	Required	Required
LCRT 5730 - Language and Literacy Across the Curriculum	Required		Required	Required		Required
Children's literature course, per advisor approval	Select one	Select one	Select one			
LCRT 5201 - Adolescent Literature				Required	Required (<i>waived if taken as part of English Licensure</i>)	Required
LCRT 6910 - Seminar and Practicum in Literacy and Language, K-6	Required	Required	Required			
LCRT 6911 - Seminar and Practicum in Literacy and Language, 7- 12+				Required	Required	Required
LCRT 5055 - Linking Assessment and Instruction in Language and Literacy	Required	Required	Required	Required	Required	Required
LCRT 6915 - Seminar and	Required	Required		Required	Required	Required

Practicum in Literacy Professional Development						
Core course in Research and Evaluation Methodology - see list below	Select one	5080		Select one	5080	
Interdisciplinary core course - see list below	Select one			Select one		
Graduate-level School of Education and Human Development elective				Select one		
Portfolio	Required	Required		Required	Required	
PLACE Exam	Required	Required	Required	Required	Required	Required
Total Semester Hours	36	27	27	36	27	27

Secondary English Education Option

The master's program in secondary English education is designed to enhance the preparation of middle and high school English/language arts teachers. Students complete course work in language development, assessment and field experiences. With the help of their advisor, they also select specific courses from the English Department or within the School of Education and Human Development that provide a well-rounded repertoire of knowledge and skills to fulfill the needs of an English educator. Special consideration is given to working with diverse ethnic populations.

Program Requirements

To earn a master of arts degree in curriculum and instruction with an emphasis in secondary English education, students must complete the following:

- 30 graduate semester hours in English education
- 6 graduate semester hours of core courses
- performance-based assessments that culminate in a portfolio finalized in the last semester of the program as fulfillment of the MA comprehensive exam requirement

Each student's course plan is developed in conjunction with his/her advisor. Please review www.ucdenver.edu/education/englished for recommended course sequence.

LCRT 5055 - Linking Assessment and Instruction in Language and Literacy Semester Hours: 3

LCRT 5201 - Adolescent Literature Semester Hours: 3

LCRT 5200 - Theory and Methods of English Education Semester Hours: 3

LCRT 5810 - Wksp: Lang Acq & Development Semester Hours: 3

LCRT 5010 - Foundations of Language Semester Hours: 3

LCRT 6911 - Seminar and Practicum in Literacy and Language, 7-12+ Semester Hours: 3

Research and Evaluation Methodology core course (see list below).

Interdisciplinary core course (see list below).

Four electives, per advisor approval, from the English department and/or the School of Education & Human Development. The following are recommended:

LCRT 5720 - Writing: Process, Development, and Teaching Grades 3-12 Semester Hours: 3

-OR-

ENGL 5110 - Denver Writing Project Semester Hours: 3

Courses in working with English language learners and in instructional technology may also be helpful. For a technology course, please contact the professor about prerequisite knowledge.

Total: 36 semester hours

Program Requirements--When Added to CU Denver's Graduate Teacher Education Licensure Program

MA in curriculum and instruction with emphasis in secondary English education, when added to CU Denver's graduate teacher education licensure program:

- 18 graduate semester hours
- performance-based assessments that culminate in a portfolio finalized in the last semester of the program as fulfillment of the MA comprehensive exam requirement

Each student's course plan is developed in conjunction with his/her advisor. Please review www.ucdenver.edu/education/englished for recommended course sequence.

FNDS 5050 - Critical Issues in American Education Semester Hours: 3

-OR-

SPED 5300 - Collaborating in Schools and Communities Semester Hours: 3

RSEM 5080 - Research In Schools Semester Hours: 3

Four electives, per advisor approval, from the English Department and/or the School of Education and Human Development. The following are recommended:

LCRT 5720 - Writing: Process, Development, and Teaching Grades 3-12 Semester Hours: 3

-OR-

ENGL 5110 - Denver Writing Project Semester Hours: 3

Courses in working with English language learners and in instructional technology may also be helpful. For a technology course, please contact the professor about prerequisite knowledge.

Total: 18 semester hours

Core Courses

Research and Evaluation Methodology

RSEM 5000 - Orientation to Research and Measurement in Education Semester Hours: 3

RSEM 5050 - Classroom Assessment Semester Hours: 3

RSEM 5080 - Research In Schools Semester Hours: 3

RSEM 5100 - Basic Statistics Semester Hours: 3

RSEM 5120 - Introduction to Research Methods Semester Hours: 3

RSEM 5110 - Introduction to Measurement Semester Hours: 3

Interdisciplinary

EPSY 5100 - Advanced Child Growth and Development Semester Hours: 3

EPSY 5140 - Advanced Adolescent Growth and Development Semester Hours: 3

EPSY 5220 - Adult Learning and Education Semester Hours: 3

EPSY 6200 - Human Development Over the Life Span Semester Hours: 3

FNDS 5050 - Critical Issues in American Education Semester Hours: 3

FNDS 5420 - History and Philosophy of Education: Twentieth Century America Semester Hours: 3

LCRT 5140 - Multicultural Education Semester Hours: 3

LCRT 5150 - Culture of the Classroom Semester Hours: 3

CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdns Semester Hours: 3

CLDE 5820 - Techniques in Teaching English as a Second Language Semester Hours: 3

Cumulative Portfolio

The MA portfolio counts as the comprehensive exam for the master's degree. The portfolio is an accumulation of the performance based assessments completed during program courses and reflects on the student's development over the course of the degree program. Reading and writing students must include confirmation of Reading Teacher PLACE exam registration in their portfolios. Information about the PLACE is online at www.place.nesinc.com.

Course Scheduling

During the fall and spring semesters, most university courses are offered in the late afternoon and evening and meet for three hours once a week over a 16-week semester. Some alternative course schedules are available, such as meeting on five Friday-evening/all-day Saturday combinations. In the summer semester, three- to eight-week sessions are offered, and courses may be in the morning, afternoon or evening.

Planning

For practicing full-time teachers, we recommend taking one course each fall and spring semester, and up to two courses each summer. Plan carefully because courses are intended to build upon each other, and some courses are only offered once a year.

Active Status

Students must complete their programs within seven years, maintaining a GPA of 3.0. Students typically take four courses each calendar year. Failure to enroll over three contiguous semesters will result in a requirement to submit readmission materials.

Early and Adolescent Literacy Certificates

The early literacy certificate and adolescent literacy certificate each include three graduate-level courses (for a total of 9 semester hours) and are conveniently offered entirely online. They are specifically designed to help licensed teachers develop the skills necessary to reach student readers. To find out more, please visit www.ucdenver.edu/education/cpe or email cpe@ucdenver.edu.

Emergency Management and Homeland Security Concentration/Graduate Certificate

The graduate concentration in Emergency Management and Homeland Security is available as a concentration within the MPA and MCJ programs, or as a stand-alone certificate for non-degree students. This concentration, which requires 15 credit hours (5 courses) provides advanced education in the management of emergencies, hazards, disasters, and homeland security. For more information, contact Brian Gerber at brian.gerber@ucdenver.edu.

Requirements

Students take two of three required courses as well as three elective courses approved by their advisor. The emergency management and homeland security concentration/certificate allows students to choose electives organized in the following tracks: policy and management, spatial analysis and quantitative assessment, public safety, homeland security and justice or public and environmental health. Students may choose courses in one track to create a more focused concentration or pick from among the tracks to fulfill their elective course requirements.

- GEOG 5230 - Hazard Mitigation and Vulnerability Assessment
- PUAD 5650 - Disaster and Emergency Management Policies
- PUAD 5450 - Law of All-Hazards Management

Total: 15 Hours

The emergency management and homeland security certificate requires the completion of three electives chosen from a preapproved, multidisciplinary list of courses relevant to emergency management. Students may choose electives in one of three tracks: policy and management; spatial analysis, planning and quantitative assessment; or public safety, homeland security and justice.

Environmental Policy, Management and Law Graduate Certificate

Understanding our environment requires an understanding of relationships. In environmental science, it means understanding relationships within ecosystems, and how human behavior affects them. In Environmental Policy, Management, and Law (EPML), it means understanding how the environment is affected by relationships between various entities, including:

- * legislatures
- * administrative agencies
- * courts
- * federal, state, and local governments
- * government and the nonprofit and private sectors
- * government and the public it has been established to serve

The Environmental Policy, Management, and Law (EPML) program provides qualified applicants with just that understanding. Offered by the School of Public Affairs, University of Colorado Denver, the EPML program can be taken as either a stand-alone graduate certification program or as an emphasis area within the school's Master of Public Administration curriculum.

The core of the EPML program requires completion of two of the three required graduate seminars, all taught by full-time core faculty who specialize in environmental affairs. Then students select three elective courses under faculty advisement.

Core Seminars

Students must take the following two courses:

- PUAD 5631 - Seminar in Environmental Politics and Policy
- PUAD 5633 - Seminar in Natural Resource and Environmental Health Law

Pre-approved Electives (partial list)

An additional three electives are required, and must be approved by the Concentration Director.

- CVEN 5393 - Water Resources Development and Management
- CVEN 5401 - Introduction to Environmental Engineering
- CVEN 5402 - Integrated Environmental Modeling
- CVEN 5480 - Hazardous Wastes and Site Remediation
- CHEM 4700 - Environmental Chemistry
- CHEM 5710 - Air Pollution Chemistry
- CHEM 5720 - Atmospheric Sampling and Analysis
- URPL 6250 - Advanced GIS for Planners
- URPL 6649 - Environmental Planning I: Ecology
- URPL 6500 - Enviro. Policy & Regulation
- URPL 6549 - Environmental Impact Assessment
- URPL 6510 - Energy/Natural Res. Planning

- ENVS 5030 - Environmental Geology
- ENVS 5500 - Topics in Environmental Sciences
- ENVS 5730 - Air Quality Modeling and Analysis
- ENVS 6200 - Risk Assessment
- ENVS 6210 - Human Health and Environmental Pollution
- ENVS 6220 - Toxicology
- ENVS 6230 - Environmental Epidemiology
- BIOL 5154 - Conservation Biology
- BIOL 5445 - Applied Environmental Biology
- GEOG 5090 - Environmental Modeling with Geographic Information Systems
- GEOG 5265 - Sustainability in Resources Management
- PUAD 5310 - Policy Formulation & Implementation
- PUAD 5320 - Public Policy Analysis
- PUAD 5410 - Administrative Law
- PUAD 5420 - Law and Public Policy
- PUAD 5440 - Negotiation and Conflict Resolution
- PUAD 5625 - Local Government Management
- PUAD 5650 - Disaster and Emergency Management Policies
- PUAD 5710 - Public Sector Technology

Certificate Requirements

Students must take the following two courses:

- PUAD 5631 - Seminar in Environmental Politics and Policy
- PUAD 5633 - Seminar in Natural Resource and Environmental Health Law

An additional three electives are required, and must be approved by the Concentration Director.

Total: 15 Hours

Environmental Sciences Graduate Certificate

► Graduate School Rules apply to this program.

The graduate-level certificate in environmental sciences has seven options: air quality, ecosystems, environmental health, environmental science education, geospatial analysis, hazardous waste and water quality. Each option comprises four courses and is designed to approach an environmental issue from various disciplines. To earn a certificate, students are required to satisfactorily complete the courses in the option of their interest. These courses may be taken as electives within an MS degree program or through nondegree admission. Students must have the prerequisites for each course and must meet the requirements listed. Contact the option advisor for the particular option of interest before starting. A certificate will be issued upon proof of satisfactory completion of the courses. For an MS degree, students must coordinate the option courses with electives in their program. The listings of courses in each option are in the electives section of the master's program information.

Geographic Information Science Graduate Certificate

► Graduate School Rules apply to this program.

GISci Certificate Advisor: Peter Anthamatten

Office: North Classroom, 5030-B

Telephone: 303-556-4277

E-mail: peter.anthamatten@ucdenver.edu

The intention of this certificate is to provide graduate-level students at CU Denver with the mechanisms for demonstrating capabilities in spatial techniques in the social and/or physical sciences. The focus of this certificate is on a broad array of geospatial techniques, including geographic information systems, remote sensing, cartography and statistics, which give students additional analytical skills for the workplace or graduate school. This certificate is designed for majors in GES as well as other disciplines.

Upon successful completion of the certificate, students will be able to:

- understand basic theoretical underpinnings of spatial analysis
- apply geo-spatial technologies to real-world problems
- have a basic knowledge of how to operate at least three types of software used in spatial analytical applications

Application

Spatial techniques are tools with broad application. Consequently, graduate students in any discipline will be admitted into the program. Non-degree seeking students with a prior bachelor's degree will also be admitted. To apply for non-degree admission, go to Information for Undergraduate Students and click on the Nondegree Students link at top of page. Students may begin the program in any semester or during the summer by making arrangements with the GIS certificate coordinator, and completing and signing the Application for GISci Certificate.

Course Requirements

To obtain the certificate, students must complete four core courses, one elective, and a 1-credit independent study or applied GIS lab, totaling 16 hours. Although the four core courses may be taken in any order, students without any background in the geospatial sciences are advised to begin with GEOG 5080, Introduction to Geographic Information Systems, since this course familiarizes students with many key concepts used in the other classes. The statistics class and GEOG 5080 have prerequisites, including algebra and introductory calculus. Because of the technical nature of the GIS and remote sensing course work, some mathematical experience is desirable prior to beginning the program.

In order to obtain the certificate, students must have a 3.0 GPA in all courses required for the program, and the independent project must demonstrate proficiency in GIS in the student's area of interest. All core courses are offered on an annual or bi-annual basis. Any alterations to the

program MUST be approved by the GISci Coordinator. The certificate will be awarded upon completion of the program.

Prerequisite Course

Note: this course does NOT count as part of the total credits required for the certificate.

- GEOG 2080 - Introduction to Mapping and Map Analysis

Core Courses

- GEOG 5080 - Introduction to GIS
- GEOG 5081 - Cartography and Computer Mapping
- GEOG 5060 - Remote Sensing I: Introduction to Environmental Remote Sensing
(May also take as GEOL 5060)
- GEOL 5770 - Applied Statistics for the Natural Sciences
- - OR- ENVS 5600 - Applied Statistics for the Natural Sciences
OR equivalent course approved by the GISci Certificate Coordinator

Total: 12 Hours

Elective (choose two from the following):

- GEOG 5070 - Remote Sensing II: Advanced Remote Sensing
(May also take as GEOG 5070)
 - GEOG 5085 - GIS Applications for the Urban Environment
 - GEOG 5090 - Environmental Modeling with Geographic Information Systems
 - GEOG 5095 - Deploying GIS Functionality on the Web
 - GEOG 5235 - GIS Applications in the Health Sciences
 - CVEN 5382 - GIS Spatial Database Development
 - CVEN 5385 - GIS Relational Database Systems
- One of these courses may be substituted with an elective approved by the GISci Certificate Coordinator

Total: 6 Hours

Certificate Total: 18 Hours

Geographic Information Systems Graduate Certificate

This certificate is for students who want to get a taste of the geographic information systems (GIS) specialty area before applying for a graduate degree and for professionals who need a working knowledge of GIS. To earn the certificate in GIS, students must complete four of the core GIS classes, equaling 12 semester hours of work. Students can complete this certificate as a master's student or as a nondegree student. Students must already have a baccalaureate degree and must complete any course-specific prerequisites.

Geospatial Information Science Graduate Certificate

Contact: Mike Hinke

Telephone: 303-556-4172

E-mail: michael.hinke@ucdenver.edu

The College of Architecture and Planning offers a certificate in geospatial information science through participating departments. The emphasis of this certificate is on applications of GIS in urban and environmental planning and design fields. The certificate is available to any student earning one of our graduate degrees; to students earning cognate degrees, for example in the School of Public Affairs, College of Engineering and Applied Science or from the Department of Geography; and to nondegree students who have already earned such a degree.

The certificate is currently undergoing revision. Please refer to the College of Architecture and Planning website.

Interpersonal Violence and Health Care Graduate Certificate

The Certificate in Interpersonal Violence and Health Care (CIVHC) fulfills a nationally recognized need to educate and train individuals from a broad range of health disciplines to effectively respond to victims of interpersonal violence. Offered for the first time beginning in spring 2009, CIVHC is a program of the Center on Domestic Violence in CU Denver's School of Public Affairs. It has been developed by the CU Denver's School of Public Affairs in collaboration with local and national advisors representing schools of nursing, medicine and dentistry, as well as knowledgeable health practitioners skilled in meeting the needs of patients experiencing interpersonal violence. CIVHC is the first graduate level program of its kind. As a distance learning program it represents a collaboration within the University of Colorado system—the Downtown Campus, the Anschutz Medical Campus and the Colorado Springs Campus. Its goal is to provide education for health professionals, faculty and students, thereby building proficiency and confidence in interpersonal violence prevention, identification and intervention in Colorado and the nation.

At the completion of this certificate program, participants will have:

- Leadership skills necessary to improve systematic responses to domestic violence in health care settings
- Thorough understanding of the health ramifications of interpersonal violence
- Skill and comfort with screening all patients for domestic violence—victims, offenders and child witnesses
- Ability to effectively assess and treat adults and children engaged in violent relationships
- Ability to build resources to meet the needs of patients including, but not limited to, collaboration with community based providers.

Courses required for completion of the certificate:

- Women and Violence: A Sociological Perspective
- Psychology of Domestic Violence
- Battered Women and the Legal System
- Interpersonal Violence and Health
- Interpersonal Violence, Health Advocacy and Systems Change

Full course descriptions are available online at www.domesticviolence.ucdenver.edu

Local Government Concentration and Graduate Certificate

Local government is the most rapidly growing area of the public sector employment across the country, providing jobs in municipalities, counties, regional authorities, and councils of government.

The Local Government Concentration allows Master of Public Administration students to become well-versed in the forces that shape the agendas of these offices and agencies and gain an understanding of government management and policy making. MPA students who wish to earn a concentration in Local Government must take two of the following courses as part of their electives:

Non-degree students may earn a Local Government Certificate by completing 15 credit hours (5 courses) in topics approved by the Concentration Director.

For more information, contact:

Dr. Allan Wallis, Local Government Concentration Director & Associate Professor
University of Colorado Denver
School of Public Affairs
Phone: (303) 315-2829
Fax: (303) 315 - 2229
E-mail: Allan.Wallis@ucdenver.edu

Certificate Requirements

Students take at least two of the four courses listed below:

- PUAD 5503 - Governmental Budgeting
 - PUAD 5625 - Local Government Management
 - PUAD 5626 - Local Government Politics and Policy
 - PUAD 5628 - Urban Social Problems
- Electives approved by advisor (3) (6-9 semester hours)

Total: 15 Hours

Nonprofit Management Graduate Certificate

The Nonprofit Concentration prepares students to become innovative and critical thinkers in the areas of nonprofit organizational management and public policy. The Nonprofit Concentration's unique design bridges theoretical knowledge with real-world experience. As our students prepare for their careers or advancement in their current positions, they gain insight into the interdependence between the nonprofit, public, and for-profit sectors. The Nonprofit Concentration prides itself in graduating leaders who are capable of spanning the boundaries of these three sectors to assess community needs, navigate the realm of public policy, and strategically and effectively manage organizations that ultimately benefit society.

Certificate Requirements

Students take two required courses as well as electives approved by advisor.

- PUAD 5110 - Seminar in Nonprofit Management
 - PUAD 5140 - Nonprofit Financial Management
- Additional electives (3): **Semester Hours: 9**

Total: 15 Hours

Public Relations Graduate Certificate

► Graduate School Rules apply to this program.

Public Relations has been defined as the management function that entails planning, research, publicity, promotion and collaborative decision-making to help any organization's ability to listen to, appreciate and respond appropriately to those persons and groups whose mutually beneficial relationships the organization needs to foster as it strives to achieve its mission and vision. The graduate certificate in public relations is designed to provide students with the principles and theories that guide the work of public relations practitioners in commercial, public and non-profit contexts.

The graduate certificate in public relations is designed for working professionals who already have earned bachelor's degrees but who would like to enhance or upgrade their skills in the area of public relations. Non-degree students who enroll in the MA program following completion of the certificate may transfer up to 12 hours of credits earned for the certificate into credits for the MA degree. The certificate also is designed for students enrolled in a CU Denver master's program, including the Department of Communication's MA program. For such students, the certificate can be completed as part of or in addition to the course work required for the master's degree (recipients of the undergraduate certificate in public relations are ineligible to complete this certificate).

Certificate Requirements

The graduate certificate in public relations requires four courses (12 semester hours):

- COMM 5240 - Organizational Communication
- -OR- COMM 4805 - Graphics
- COMM 5635 - Principles of Public Relations
- COMM 5640 - Advanced Public Relations
- COMM 5665 - Principles of Advertising

Total: 12 Hours

Students may be permitted to take courses other than those listed above to fulfill the requirements for the certificate if those courses fit their professional goals better (COMM 5635, Principles of Public Relations may not be substituted, however). Requests for approval of substitute courses, including an explanation for the substitution, must be made in writing to Hamilton Bean.

Grade and Residency Requirements

A grade of *B* must be earned in each course completed as part of the certificate. All of the credit hours for the certificate must be earned at the University of Colorado Denver.

Application Procedures and Additional Information

Students should apply for the graduate certificate in public relations after the completion of the required courses. To apply, students must complete the certificate application and return it to

Dr. Hamilton Bean in his mailbox in room 102-A of the Plaza Building or mail to Department of Communication; P. O. Box 173364, Campus Box 176; University of Colorado Denver; Denver, CO 80217-3364. The approved certificate is mailed to the student.

Students who are not already enrolled at CU Denver must also complete an Application for Non-Degree Admission prior to registering for courses. The form should be returned to the Office of Admissions in the annex of the CU Building.

Additional information about the graduate certificate in public relations may be obtained from Dr. Hamilton Bean, Department of Communication, Plaza 102-Q, 303-352-3876, Hamilton.Bean@ucdenver.edu.

Sustainable Urban Infrastructure Graduate Certificate

This certificate is for students and working professionals who seek an interdisciplinary curriculum in the broad field of sustainable infrastructure to address complex water, energy, built environment and transportation challenges using engineering and social science strategies. Students must already have a baccalaureate degree.

Teaching English Language Learners Graduate Certificate (CTELL)

► Graduate School Rules apply to this program.

Program Advisor: Hongguang (Ian) Ying, Associate Professor

Office: 1050 Ninth Street Park, Room 100

Telephone: 303-556-6728

E-mail: Hongguang.Ying@ucdenver.edu

Program Description

To meet the increasing needs of individuals seeking advanced training in teaching English as a second language, the English department at CU Denver offers a graduate Certificate in Teaching English Language Learners (CTELL).

The certificate program is designed to build the necessary skills to teach adults English as a second language through focused preparation. It is primarily aimed at native speakers of English who want to teach overseas, but may serve the needs of international students wanting to teach English in their home country or other countries.

Upon successful completion of the program, CTELL participants will be able to:

- Discuss the theoretical basis of second language instruction
- Demonstrate a variety of effective ESL teaching techniques
- Explain, in pedagogically relevant ways, the linguistic structures of the English language

Curriculum

The curriculum consists of 12 semester hours (9 semester hours of required courses, and three semester hours of electives). The required courses must be taken at CU Denver. A GPA of 3.0 or better is required for all graduate courses.

Required Courses

- ENGL 5171 - Language Theory
- ENGL 5651 - Second Language Writing
- ENGL 5601 - Principles and Practices of Second Language Acquisition

Total: 9 Hours

Elective Courses

- ENGL 5093 - Teaching of Writing
An alternative elective such as a special topic course (i.e., ENGL 5190 - Cross-Cultural Communication) approved by the program advisor.
An internship approved by the program advisor.

Total: 3 Hours

Total: 12 Hours

Additional Information

LENGTH OF TIME

The course of study will typically last one academic year, including the summer session.

WHEN YOU MAY BEGIN

You may begin in any semester. There is no fixed deadline for application for admission.

PREREQUISITES

All applicants must have a bachelor's degree or the equivalent, with a 3.0 GPA, to be accepted to the program. Graduate students at CU Denver will also be permitted to apply for the certificate while they are concurrently completing another graduate degree. Permission may not be granted to graduate students in the applied linguistics option of the Master of Arts in English program.

Non-native speakers of English are required to submit an official TOEFL (Test of English as a Foreign Language) report showing a score of at least 580. Those who score below 580 but above 525 on the TOEFL may be admitted conditionally to the program. Under these conditions, students will have their English language skills assessed by the faculty of the program immediately after they arrive on campus to determine whether further courses are needed to develop English language proficiency. After assessment, the students may be assigned to full-time language study in an intensive English program, permitted to take graduate-level classes on a conditional basis along with further designated language study or permitted to begin graduate study without further restrictions.

Teaching English to Speakers of Other Languages (TESOL) Graduate Certificate

Linguistically Diverse Education

Requirements for LDE Program

(Degree/Endorsement or Certificates - TESOL, CRUE, TCLD)

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Web site: www.ucdenver.edu/education/lde

Faculty

Information about faculty in this program is available at www.ucdenver.edu/education/lde. The faculty of linguistically diverse education (LDE) believe that effective teaching requires an awareness of and the ability to respond to individual differences. LDE faculty also emphasize the importance of teachers as scholars and reflective practitioners. In particular, teachers must understand how linguistic and cultural diversity affect their teaching. Two themes run throughout all program offerings. The first concerns the importance of recognizing a variety of literacies—"home" literacies, school literacy, "mainstream" literacy, first and second language literacies—and to develop teaching practices that utilize an understanding of the complexity of literacy development across language contexts. The second theme involves the meaningful use of language and literacy to improve the quality of one's life. As an approach to teaching, this theme emphasizes the creation of diverse, rich environments in which learners experience oral and written language as part of authentic tasks, and where concern for the cultural and linguistic heritage of the students is evident.

Program Options

The LDE program offers options leading to the following:

- a Master of Arts in Curriculum and Instruction
- the Colorado Endorsement for Culturally and Linguistically Diverse Education
- a Teaching English to Speakers of Other Languages (TESOL) certificate
- a Culturally Responsive Urban Education (CRUE) certificate
- a Teaching for Cultural and Linguistic Diversity (TCLD) certificate

The program is intended for:

- novice teachers who have completed their Colorado teaching credentials in CU Denver's graduate teacher education licensure program and are enrolled in the MA in curriculum and instruction with an emphasis in LDE (see 27 semester-hour option)
- veteran elementary and secondary teachers returning to graduate studies for the master's degree (36 semester hours)

- veteran elementary and secondary teachers returning to acquire Colorado endorsement credentials (24 semester hours)
- individuals interested in teaching English abroad (TESOL: 15 semester hours)
- elementary and secondary teachers who desire preparation in better meeting the needs of culturally diverse learners (CRUE: 9 semester hours)
- veteran elementary and secondary teachers returning to graduate studies for a certificate to aid them in helping their English language learners succeed (TCLD: 9 semester hours)
- individuals interested in teaching adults (MA: 36 semester hours)

The MA is a field-based professional development program involving university faculty and practicing LDE instructors in public school and intensive English settings. Courses, laboratories and practica emphasize scholarly approaches to complex problems of practice and feature interactive, collaborative and practical approaches to working with English language learners.

We advocate a sociocultural approach to issues of language and learning, acknowledging the legitimacy of linguistic and cultural differences and recognizing that academic settings represent important socializing forces in students' lives. Because of this, we emphasize the "whole learner" in our teaching and in teacher education and teacher development, understanding that individuals do not merely add a language to their repertoire of communication but make fundamental identity adjustments as they progress in their studies. For this reason, all our course work, laboratories and practica experiences are field-based, putting our program participants in contact with veteran teachers and English language learners. We draw heavily on recent scholarship in collaborative approaches to school-university partnerships and systemic school change in developing classroom methods and materials, curricula and teacher development experiences.

The MA program also provides a foundation in teaching English in a variety of contexts in the United States and abroad. Teachers who work in LDE programs or in other content areas (such as art, language arts, math, music, science, social studies or technology), but who wish to integrate LDE principles and strategies into their instruction for their English language learners, will find the MA program relevant to their interests and goals.

Course work includes language teaching methodology, language acquisition, linguistic analysis of English, multicultural foundations, assessment, literacy and other areas. This program has been developed as an advanced course of study for practicing teachers or individuals with some teaching experience.

Applicants who are new to teaching, and who wish to teach in U.S. K–12 public school settings, should inquire about the teacher education licensure program. Applicants who are new to teaching, but who do not need a teaching license (certification) because they do not wish to teach in U.S. public schools, may consider the TESOL certificate to gain initial teaching experiences before applying for the MA.

Program Requirements and Courses

To complete the LDE program and earn a master's degree and/or endorsement, or to earn a TESOL certificate, students must complete the appropriate course work as outlined in the table

below.

Requirements for LDE Program (Degree/Endorsement or TESOL Certificate)					
Course	MA without CDE Endorsement in LDE	MA and CDE Endorsement in CLDE	CDE Endorsement in CLDE Only	MA and CDE Endorsement in CLDE (when added to CU Denver's graduate teacher education licensure program)	TESOL Certificate
CLDE 5010 - Foundations of Language, Literacy and Culture	Required	Required	Required	Required	
<i>One course from culture options:</i> CLDE 5140 - Multicultural Education CLDE 5150 - Culture of the Classroom CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdn	Select One	Select One	Select One	Select One	

CLDE 5070 - Linguistic Analysis of English: Implications for Teaching	Required	Required	Required	Required	Required
CLDE 5030 - Language & Literacy Acquisition Div Lrn	Required	Required	Required	Required	Required
CLDE 5820 - Techniques in Teaching English as a Second Language	Required	Required	Required	Required	Required
CLDE 5050 - Assessment & Advocacy for Diverse Learners	Required	Required	Required	Required	Required
<i>One course from field- based teaching options:</i> LCRT 5020 - Workshop in Literacy and Language Teaching CLDE 5825 - Methods and Materials of Language Teaching CLDE 5826 - Language Teaching Lab	5826 preferred	Elem: 5825 preferred Sec: 5826 preferred	Elem: 5825 preferred Sec: 5826 preferred	Elem: 5825 preferred Sec: 5826 preferred	5826

LCRT 5730 - Language and Literacy Across the Curriculum LCRT 5770 - Effective Literacy Instruction for Second Language Learners					
CLDE 5035 - Language and Literacy: Acquisition, Processes, and Cognition, Part II	Required	Required			
CLDE 6912 - Seminar and Practicum in Literacy and Language, ESL and Bilingual Education	Required	Required	Required	Required	
<i>One course from research and evaluation methodology:</i> RSEM 5050 - Classroom Assessment RSEM 5080 - Research In Schools	Select One	Select One		Select One	
<i>One course from educational</i>	Select One	Select One			

<i>psychology:</i> EPSY 5110 - Human Learning EPSY 5220 - Adult Learning and Education					
Graduate-level University of Colorado elective	Select One	Select One			
Cumulative online portfolio	Required	Required	Required	Required	
LDE PLACE Exam (not required for students beginning Spring 2013 or later)		Only required if beginning prior to spring 2013	Only required if beginning prior to spring 2013	Only required if beginning prior to spring 2013	
Total Semester Hours	36	36	24	27	15

Culturally Responsive Urban Education (CRUE) Certificate Requirements

Those considering the CRUE certificate must complete the following:

CLDE 5170 - Race, Class and Culture in Public Schools Semester Hours: 3

CLDE 5180 - Working with Communities and Families Semester Hours: 3

CLDE 5190 - Culturally Responsive Pedagogy and Practices Semester Hours: 3

Total: 9 Hours

This certificate is only offered as a cohort, through our district partnerships. Additional information about the CRUE certificate can be found at www.cruecenter.org/certificate.php.

Teaching for Cultural and Linguistic Diversity (TCLD) Certificate

The TCLD Certificate (formerly known as Content Instruction for English Learners (CIEL) is a graduate certificate providing a foundation in teaching content to students whose first language is other than English. The program is designed for content-area teachers (math, science, social studies, etc.) who have English language learners in their classes. This certificate is also valuable to content area coaches or administrators who provide support for teachers with English language learners. The certificate is appropriate for public school and community college personnel.

The certificate totals nine credit hours with the specialty area in linguistically diverse education (LDE). All courses are three graduate credit hours and may be applied directly toward a full master's degree in Curriculum and Instruction with an emphasis in LDE while also fulfilling the requirements toward a Colorado Culturally and Linguistically Diverse Education Endorsement. Courses may also be applied toward the Teaching English to Speakers of Other Languages (TESOL) Certificate. Additional courses and applications are required for these programs.

The certificate may be completed in one year. Those pursuing the TCLD certificate must complete the following:

CLDE 5030 - Language & Literacy Acquisition Div Lrn

CLDE 5820 - Techniques in Teaching English as a Second Language

LCRT 5770 - Effective Literacy Instruction for Second Language Learners

The TCLD certificate is being offered only through our district partnerships.

Cumulative Portfolio of Performance Based Assessments (PBAS)

The portfolio is required for the CLDE endorsement, counts as the comprehensive exam for the master's degree and permits you to document your development over the course of your program. Portfolios are reviewed by LDE faculty members. The portfolio process is reviewed in every class as each of the PBAs is completed in the classes, helping students to update their portfolios throughout the program. For more portfolio guidelines, visit the website at <http://www.ucdenver.edu/education>, click on "Current Students" and select Linguistically Diverse Education from the "Program specific resources" drop-down menu.

PLACE Exam for Linguistically Diverse Education Endorsement

To add the endorsement to their teaching license, students beginning the program prior to Spring 2013 must pass the PLACE (Program for Licensing Assessments for Colorado Educators) exam for linguistically diverse education, secure and submit the appropriate paperwork from the Colorado Department of Education, and pay fees required for the PLACE and for the endorsement paperwork. Information about PLACE is online at www.place.nesinc.com. Students beginning Spring 2013 or later will be eligible for the Culturally and Linguistically Diverse Education Endorsement and will not be required to pass the PLACE exam to receive the CLDE endorsement.

Course Scheduling

During the fall and spring semesters, most university courses are offered in the late afternoon and evening and meet for three hours once a week over a 16-week semester. Some alternative course schedules are available, such as meeting on five Friday-evening/all-day Saturday combinations. In the summer semester, three-to eight-week sessions are offered, and courses may be in the morning, afternoon or evening.

Planning

For practicing full-time teachers, we recommend taking one course each fall and spring semester and up to two courses each summer. Students may simultaneously complete requirements for the MA and the endorsement for culturally and linguistically diverse education (some courses are offered only once per year.)

Active Status

Students must complete their programs within seven years, maintaining a GPA of 3.0. Students typically take four courses each calendar year. Failure to enroll over three contiguous semesters will result in a requirement to submit readmission materials.

Teaching for Cultural and Linguistic Diversity (TCLD) Certificate

Linguistically Diverse Education

Requirements for LDE Program

(Degree/Endorsement or Certificates - TESOL, CRUE, TCLD)

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Web site: www.ucdenver.edu/education/lde

Faculty

Information about faculty in this program is available at www.ucdenver.edu/education/lde. The faculty of linguistically diverse education (LDE) believe that effective teaching requires an awareness of and the ability to respond to individual differences. LDE faculty also emphasize the importance of teachers as scholars and reflective practitioners. In particular, teachers must understand how linguistic and cultural diversity affect their teaching. Two themes run throughout all program offerings. The first concerns the importance of recognizing a variety of literacies—"home" literacies, school literacy, "mainstream" literacy, first and second language literacies—and to develop teaching practices that utilize an understanding of the complexity of literacy development across language contexts. The second theme involves the meaningful use of language and literacy to improve the quality of one's life. As an approach to teaching, this theme emphasizes the creation of diverse, rich environments in which learners experience oral and written language as part of authentic tasks, and where concern for the cultural and linguistic heritage of the students is evident.

Program Options

The LDE program offers options leading to the following:

- a Master of Arts in Curriculum and Instruction
- the Colorado Endorsement for Culturally and Linguistically Diverse Education
- a Teaching English to Speakers of Other Languages (TESOL) certificate
- a Culturally Responsive Urban Education (CRUE) certificate
- a Teaching for Cultural and Linguistic Diversity (TCLD) certificate

The program is intended for:

- novice teachers who have completed their Colorado teaching credentials in CU Denver's graduate teacher education licensure program and are enrolled in the MA in curriculum and instruction with an emphasis in LDE (see 27 semester-hour option)
- veteran elementary and secondary teachers returning to graduate studies for the master's degree (36 semester hours)
- veteran elementary and secondary teachers returning to acquire Colorado endorsement credentials (24 semester hours)
- individuals interested in teaching English abroad (TESOL: 15 semester hours)

- elementary and secondary teachers who desire preparation in better meeting the needs of culturally diverse learners (CRUE: 9 semester hours)
- veteran elementary and secondary teachers returning to graduate studies for a certificate to aid them in helping their English language learners succeed (TCLD: 9 semester hours)
- individuals interested in teaching adults (MA: 36 semester hours)

The MA is a field-based professional development program involving university faculty and practicing LDE instructors in public school and intensive English settings. Courses, laboratories and practica emphasize scholarly approaches to complex problems of practice and feature interactive, collaborative and practical approaches to working with English language learners.

We advocate a sociocultural approach to issues of language and learning, acknowledging the legitimacy of linguistic and cultural differences and recognizing that academic settings represent important socializing forces in students' lives. Because of this, we emphasize the "whole learner" in our teaching and in teacher education and teacher development, understanding that individuals do not merely add a language to their repertoire of communication but make fundamental identity adjustments as they progress in their studies. For this reason, all our course work, laboratories and practica experiences are field-based, putting our program participants in contact with veteran teachers and English language learners. We draw heavily on recent scholarship in collaborative approaches to school-university partnerships and systemic school change in developing classroom methods and materials, curricula and teacher development experiences.

The MA program also provides a foundation in teaching English in a variety of contexts in the United States and abroad. Teachers who work in LDE programs or in other content areas (such as art, language arts, math, music, science, social studies or technology), but who wish to integrate LDE principles and strategies into their instruction for their English language learners, will find the MA program relevant to their interests and goals.

Course work includes language teaching methodology, language acquisition, linguistic analysis of English, multicultural foundations, assessment, literacy and other areas. This program has been developed as an advanced course of study for practicing teachers or individuals with some teaching experience.

Applicants who are new to teaching, and who wish to teach in U.S. K–12 public school settings, should inquire about the teacher education licensure program. Applicants who are new to teaching, but who do not need a teaching license (certification) because they do not wish to teach in U.S. public schools, may consider the TESOL certificate to gain initial teaching experiences before applying for the MA.

Program Requirements and Courses

To complete the LDE program and earn a master's degree and/or endorsement, or to earn a TESOL certificate, students must complete the appropriate course work as outlined in the table below.

Requirements for LDE Program (Degree/Endorsement or TESOL Certificate)					
Course	MA without CDE Endorsement in LDE	MA and CDE Endorsement in CLDE	CDE Endorsement in CLDE Only	MA and CDE Endorsement in CLDE (when added to CU Denver's graduate teacher education licensure program)	TESOL Certificate
CLDE 5010 - Foundations of Language, Literacy and Culture	Required	Required	Required	Required	
One course from culture options: CLDE 5140 - Multicultural Education CLDE 5150 - Culture of the Classroom CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdn	Select One	Select One	Select One	Select One	
CLDE 5070 - Linguistic Analysis of	Required	Required	Required	Required	Required

English: Implications for Teaching					
CLDE 5030 - Language & Literacy Acquisition Div Lrn	Required	Required	Required	Required	Required
CLDE 5820 - Techniques in Teaching English as a Second Language	Required	Required	Required	Required	Required
CLDE 5050 - Assessment & Advocacy for Diverse Learners	Required	Required	Required	Required	Required
<i>One course from field- based teaching options:</i> LCRT 5020 - Workshop in Literacy and Language Teaching CLDE 5825 - Methods and Materials of Language Teaching CLDE 5826 - Language Teaching Lab LCRT 5730 - Language and Literacy	5826 preferred	Elem: 5825 preferred Sec: 5826 preferred	Elem: 5825 preferred Sec: 5826 preferred	Elem: 5825 preferred Sec: 5826 preferred	5826

Across the Curriculum LCRT 5770 - Effective Literacy Instruction for Second Language Learners					
CLDE 5035 - Language and Literacy: Acquisition, Processes, and Cognition, Part II	Required	Required			
CLDE 6912 - Seminar and Practicum in Literacy and Language, ESL and Bilingual Education	Required	Required	Required	Required	
<i>One course from research and evaluation methodology:</i> RSEM 5050 - Classroom Assessment RSEM 5080 - Research In Schools	Select One	Select One		Select One	
<i>One course from educational psychology:</i> EPSY 5110 - Human	Select One	Select One			

Learning EPSY 5220 - Adult Learning and Education					
Graduate-level University of Colorado elective	Select One	Select One			
Cumulative online portfolio	Required	Required	Required	Required	
LDE PLACE Exam (not required for students beginning Spring 2013 or later)		Only required if beginning prior to spring 2013	Only required if beginning prior to spring 2013	Only required if beginning prior to spring 2013	
Total Semester Hours	36	36	24	27	15

Culturally Responsive Urban Education (CRUE) Certificate Requirements

Those considering the CRUE certificate must complete the following:

CLDE 5170 - Race, Class and Culture in Public Schools Semester Hours: 3

CLDE 5180 - Working with Communities and Families Semester Hours: 3

CLDE 5190 - Culturally Responsive Pedagogy and Practices Semester Hours: 3

Total: 9 Hours

This certificate is only offered as a cohort, through our district partnerships. Additional information about the CRUE certificate can be found at www.cruecenter.org/certificate.php.

Teaching for Cultural and Linguistic Diversity (TCLD) Certificate

The TCLD Certificate (formerly known as Content Instruction for English Learners (CIEL) is a graduate certificate providing a foundation in teaching content to students whose first language is other than English. The program is designed for content-area teachers (math, science, social

studies, etc.) who have English language learners in their classes. This certificate is also valuable to content area coaches or administrators who provide support for teachers with English language learners. The certificate is appropriate for public school and community college personnel.

The certificate totals nine credit hours with the specialty area in linguistically diverse education (LDE). All courses are three graduate credit hours and may be applied directly toward a full master's degree in Curriculum and Instruction with an emphasis in LDE while also fulfilling the requirements toward a Colorado Culturally and Linguistically Diverse Education Endorsement. Courses may also be applied toward the Teaching English to Speakers of Other Languages (TESOL) Certificate. Additional courses and applications are required for these programs.

The certificate may be completed in one year. Those pursuing the TCLD certificate must complete the following:

CLDE 5030 - Language & Literacy Acquisition Div Lrn

CLDE 5820 - Techniques in Teaching English as a Second Language

LCRT 5770 - Effective Literacy Instruction for Second Language Learners

The TCLD certificate is being offered only through our district partnerships.

Cumulative Portfolio of Performance Based Assessments (PBAS)

The portfolio is required for the CLDE endorsement, counts as the comprehensive exam for the master's degree and permits you to document your development over the course of your program. Portfolios are reviewed by LDE faculty members. The portfolio process is reviewed in every class as each of the PBAs is completed in the classes, helping students to update their portfolios throughout the program. For more portfolio guidelines, visit the website at <http://www.ucdenver.edu/education>, click on "Current Students" and select Linguistically Diverse Education from the "Program specific resources" drop-down menu.

PLACE Exam for Linguistically Diverse Education Endorsement

To add the endorsement to their teaching license, students beginning the program prior to Spring 2013 must pass the PLACE (Program for Licensing Assessments for Colorado Educators) exam for linguistically diverse education, secure and submit the appropriate paperwork from the Colorado Department of Education, and pay fees required for the PLACE and for the endorsement paperwork. Information about PLACE is online at www.place.nesinc.com. Students beginning Spring 2013 or later will be eligible for the Culturally and Linguistically Diverse Education Endorsement and will not be required to pass the PLACE exam to receive the CLDE endorsement.

Course Scheduling

During the fall and spring semesters, most university courses are offered in the late afternoon and evening and meet for three hours once a week over a 16-week semester. Some alternative course schedules are available, such as meeting on five Friday-evening/all-day Saturday

combinations. In the summer semester, three-to eight-week sessions are offered, and courses may be in the morning, afternoon or evening.

Planning

For practicing full-time teachers, we recommend taking one course each fall and spring semester and up to two courses each summer. Students may simultaneously complete requirements for the MA and the endorsement for culturally and linguistically diverse education (some courses are offered only once per year.)

Active Status

Students must complete their programs within seven years, maintaining a GPA of 3.0. Students typically take four courses each calendar year. Failure to enroll over three contiguous semesters will result in a requirement to submit readmission materials.

Water Resources Graduate Certificate

This certificate is for graduate students who seek an interdisciplinary curriculum in the field of hydrologic and hydraulic engineering to analyze water-related problems and obtain knowledge pertaining to watershed hydrology, groundwater modeling, urban storm water management, flood mitigation and river mechanics. Students must already have a baccalaureate degree

Women's and Gender Studies Graduate Certificate

► Graduate School Rules apply to this program.

The women's and gender studies certificate is administered through the Women's and Gender Studies program in the College of Liberal Arts and Sciences at the University of Colorado Denver. It is designed to provide members of the CU Denver population and public with specialized knowledge of the history, politics, literature and social practices related to women's and gender concerns. Students must complete 12 credit hours of course work in order to receive the certificate. Acceptance into the certificate program is subject to CU Denver Graduate School Rules.

The WGST certificate is available to any qualified graduate student or non-degree seeking, graduate-level student at CU Denver. Students begin with a required, graduate-level methodology or foundational course before pursuing a combination of WGST-related course work. Upon completion of the certificate, students will have foundational and theoretical knowledge of the major concerns of women's and gender studies.

All prospective students must complete and submit an application to the program. Upon admission to the certificate program, students are eligible for the certificate. All course work must be taken at CU Denver.

Courses

(Please note that some of the following courses may have prerequisites that *must* be met.)

Required Course

Choose one of the following:

- SSCI 6010 - Methods and Theories of Feminism and Gender Studies
- -OR- WGST 6010 - Methods and Theories of Feminism and Gender Studies
- ENGL 5306 - Survey of Feminist Thought
- -OR- HIST 5306 - Survey of Feminist Thought
- -OR- WGST 5306 - Survey of Feminist Thought

Total: 3 Hours

Elective Courses (choose three)

These courses must be explicitly women's and/or gender and/or identity-based courses. They can be taken through any CU Denver department or program with the approval of an advisor. Only one 4000-level elective may be counted toward the certificate. All other course work must be 5000-level or above.

The following is a representative listing of WGST-related courses that may be taken toward the certificate; it is not comprehensive. Please note that some of these courses may be taught sporadically. Students should meet with their advisor to plan their course of study.

- ANTH 5200 - Gender in Cross-Cultural Perspective
- COMM 5020 - Feminist Perspectives on Communication
- COMM 5045 - Female-Male Friendships
- COMM 5265 - Gender and Communication
- CRJU 5553 - Women and Crime
- ENGL 4510 - Whores and Saints: Medieval Women
- -OR- ENGL 5510 - Whores and Saints: Medieval Women
- ENGL 5000 - Studies of Major Authors
(depending on author being studied; e.g., Virginia Woolf, George Sand, etc.)
- ENGL 5306 - Survey of Feminist Thought
- -OR- HIST 5306 - Survey of Feminist Thought
- -OR- WGST 5306 - Survey of Feminist Thought
- ETST 4555 - International Women's Resistance
- -OR- PSCI 5555 - International Women's Resistance
- ETST 4827 - Women and the Law
- -OR- PSCI 4827 - Women and the Law
- HIST 5303 - Sex and Gender in Modern Britain
- HIST 5307 - History of Sexuality
- HIST 5345 - Gender, Science, and Medicine: 1600 to the Present
- HUMN 5720 - Sexuality, Gender and Their Visual Representation
- -OR- SSCI 5720 - Sexuality, Gender and Their Visual Representation
- PSCI 4215 - Women's Rights, Human Rights: Global Perspectives
- PSCI 4564 - Gender and Politics
- PSCI 5245 - Gender, Globalization and Development
- PUAD 5910 - Women and Violence: A Sociological Perspective
- PUAD 5920 - Psychology of Violence Against Women
- PUAD 5930 - Battered Women and the Legal System
- SOCY 5550 - Seminar: Sociology of the Family
- SSCI 6010 - Methods and Theories of Feminism and Gender Studies
- -OR- WGST 6010 - Methods and Theories of Feminism and Gender Studies
- WGST 5900 - Smart Girl Coaching Training and Practicum

Total: 9 Hours

For more information about this certificate program, contact the Women's and Gender Studies Director, Gillian Silverman, 303-556-4529, or Margaret Woodhull, 303-352-3926.

Requirements

CU Denver Undergraduate Core Curriculum, gtPATHWAYS

View a detailed explanation of the CU Denver Core curriculum.

The following represents the CU Denver Core curriculum as approved by the faculty on the Core Curriculum Oversight Committee (CCOC).

The Core curriculum is a total of 34-38 semester hours compiled in each of the four following areas:

- Intellectual Competencies (9-10 hours)
- Knowledge Areas (19-22 hours)
- Cultural Diversity (3 hours)
- International Perspectives (3 hours)

Courses with a gt-Key designation are approved for the Colorado Department of Higher Education (CDHE) gtPATHWAYS Transfer Program.

CU Denver schools and colleges may have specific requirements within the Core curriculum. Please see the notes at the bottom of the page for details. For help in selecting appropriate Core courses, please see an academic advisor in your school or college.

Intellectual Competencies

English

Both courses required.

- ENGL 1020 - Core Composition I **gt-Key: CO1**
- ENGL 2030 - Core Composition II **gt-Key: CO2**

Mathematics

One course required.

Students in the Business School and the College of Engineering and Applied Science should check the notes at the bottom of the page for specific requirements.

- MATH 1010 - Mathematics for the Liberal Arts **gt-Key: MA1**
- MATH 1070 - Algebra for Social Sciences and Business **gt-Key: MA1**
- MATH 1080 - Polynomial Calculus **gt-Key: MA1**
- MATH 1110 - College Algebra **gt-Key: MA1**
- MATH 1120 - College Trigonometry **gt-Key: MA1**
- MATH 1130 - Precalculus Mathematics **gt-Key: MA1**
- MATH 1401 - Calculus I **gt-Key: MA1**
- MATH 2411 - Calculus II **gt-Key: MA1**

- MATH 2421 - Calculus III **gt-Key: MA1**
- MATH 2830 - Introductory Statistics **gt-Key: MA1**

Total: 9-10 semester hours

Knowledge Areas

Biological and Physical Sciences, Mathematics

Two courses required.

One of the two required courses must have a laboratory. Students in the College of Liberal Arts and Sciences and in the College of Engineering and Applied Science should check the notes at the bottom of the page for specific requirements.

Science Courses with Labs

- ANTH 1303 - Introduction to Biological Anthropology **gt-Key: SC1**
- BIOL 1550 - Basic Biology: Ecology and the Diversity of Life **gt-Key: SC1**
- BIOL 1560 - Basic Biology: From Cells to Organisms **gt-Key: SC1**
- CHEM 1474 - Core Chemistry: Chemistry For the Consumer **gt-Key: SC1**
- ENVS 1042 - Introduction to Environmental Sciences **gt-Key: SC1**
- GEOL 1072 - Physical Geology: Surface Processes **gt-Key: SC1**
- GEOL 1082 - Physical Geology: Internal Processes **gt-Key: SC1**
- PHYS 1052 - General Astronomy I **gt-Key: SC1**

Science Courses with Co-requisite Labs

- BIOL 2051 - General Biology I **gt-Key: SC2**
- BIOL 2071 - General Biology Laboratory I **gt-Key: SC1**
- BIOL 2061 - General Biology II **gt-Key: SC2**
- BIOL 2081 - General Biology Laboratory II **gt-Key: SC1**
- CHEM 2031 - General Chemistry I **gt-Key: SC2**
- CHEM 2038 - General Chemistry Laboratory I **gt-Key: SC1**
- CHEM 2061 - General Chemistry II **gt-Key: SC2**
- CHEM 2068 - General Chemistry Laboratory II **gt-Key: SC1**
- PHYS 2010 - College Physics I **gt-Key: SC2**
- PHYS 2030 - College Physics Lab I **gt-Key: SC1**
- PHYS 2020 - College Physics II **gt-Key: SC2**
- PHYS 2040 - College Physics Lab II **gt-Key: SC1**

Science Courses Without Labs & Mathematics

- GEOG 1202 - Introduction to Physical Geography **gt-Key: SC2**
- PHYS 1100 - Foundations of Physics **gt-Key: SC2**

- PSYC 2220 - Biological Basis of Behavior **gt-Key: SC2**
MATH - A mathematics course taken to fulfill the biological and physical sciences, mathematics area, must be from the approved mathematics list, excluding the course taken to fulfill the intellectual competencies requirement.

Arts and Humanities

Arts

One course required.

Students in the College of Arts & Media should check the notes at the bottom of the page for specific requirements.

- ARTS 1450 - Visual Culture: Ways of Seeing **gt-Key: AH1**
- FINE 1001 - Introduction to Art **gt-Key: AH1**
- PMUS 1001 - Music Appreciation **gt-Key: AH1**
- THTR 1001 - Introduction to Theatre & Arts in the Community **gt-Key: AH1**

Humanities

One course required.

Students in the College of Arts & Media or humanities majors in the College of Liberal Arts and Sciences should check the notes at the bottom of the page for specific requirements.

- CHIN 1000 - China and the Chinese **gt-Key: AH1**
- ENGL 1601 - Telling Tales: Narrative Art in Literature and Film **gt-Key: AH2**
- ENGL 2600 - Great Works in British and American Literature **gt-Key: AH2**
- ETST 2155 - African American History **gt-Key: HI1**
- FREN 1000 - Introduction to Cultures of the French- Speaking World **gt-Key: AH1**
- GRMN 1000 - Germany and the Germans **gt-Key: AH1**
- HIST 1361 - U.S. History to 1876 **gt-Key: HI1**
- HIST 1362 - U.S. History Since 1876 **gt-Key: HI1**
- HIST 1381 - Paths to the Present **gt-Key: HI1**
- HIST 1400 - Controversies in History
- PHIL 1012 - Introduction to Philosophy: Relationship of the Individual to the World **gt-Key: AH3**
- PHIL 1020 - Introduction to Ethics and Society: The Person and the Community **gt-Key: AH3**
- PHIL 2441 - Logic and Language **gt-Key: AH3**
- RLST 1610 - Introduction to Religious Studies **gt-Key: AH3**
- RLST 2660 - World Religions **gt-Key: AH3**
- SPAN 1000 - Introduction to Cultures of the Spanish Speaking World **gt-Key: AH1**

Behavioral and Social Sciences

Behavioral Sciences

One course required.

Social science majors should check the College of Liberal Arts and Sciences notes at the bottom of the page for specific requirements.

- ANTH 1302 - Introduction to Archaeology **gt-Key: SS3**
- ANTH 2102 - Culture and the Human Experience **gt-Key: SS3**
- COMM 1011 - Fundamentals of Communication **gt-Key: SS3**
- COMM 1021 - Introduction to Media Studies **gt-Key: SS3**
- PSYC 1000 - Introduction to Psychology I **gt-Key: SS3**
- PSYC 1005 - Introduction to Psychology II **gt-Key: SS3**

Social Sciences

One course required.

Students in the Business School, the School of Public Affairs, or behavioral science majors in the College of Liberal Arts and Sciences should check the notes at the bottom of the page for specific requirements.

- ECON 2012 - Principles of Economics: Macroeconomics **gt-Key: SS1**
- ECON 2022 - Principles of Economics: Microeconomics **gt-Key: SS1**
- EDFN 1000 - Democracy & Public Schooling **gt-Key: SS3**
- ENV5 1342 - Environment, Society and Sustainability **gt-Key: SS2**
- ETST 2000 - Introduction to Ethnic Studies **gt-Key: SS3**
- GEOG 1102 - World Regional Geography **gt-Key: SS2**
- GEOG 1602 - Introduction to Urban Studies **gt-Key: SS2**
- GEOG 2202 - Natural Hazards **gt-Key: SS2**
- HBSC 2001 - Understanding Community and Public Health **gt-Key: SS3**
- PSCI 1001 - Introduction to Political Science: The Quest for Freedom and Justice **gt-Key: SS1**
- PSCI 1101 - American Political System **gt-Key: SS1**
- SJUS 2000 - Democratic Participation and Social Justice **gt-Key: SS1**
- SOCY 1001 - Introduction to Sociology **gt-Key: SS3**
- SOCY 2462 - Introduction to Social Psychology **gt-Key: SS3**

Total: 19-22 semester hours

Cultural Diversity

One course required.

Cultural diversity courses are restricted, requiring junior-level standing or the consent of the instructor prior to registration.

- ANTH 3000 - Globalization, Migration and Transnationalism
- ANTH 3142 - Cultural Diversity in the Modern World
- COMM 3271 - Communication and Diversity
- ECON 3100 - Economics of Race and Gender
- EDFN 3000 - Undocumented Mexican Immigration
- EDFN 4000 - Food Justice in City & Schools
- ENGL 3795 - Race and Ethnicity in American Literature
- ENGR 3400 - Technology and Culture
- ETST 3704 - Culture, Racism and Alienation
- ETST 3794 - Ethnic Diversity in American Literature
- HIST 3345 - Immigration and Ethnicity in American History
- HIST 3349 - Social Movements in 20th Century America
- MGMT 4100 - Managing Cultural Diversity
- PHIL 3500 - Ideology and Culture: Racism and Sexism
- PMUS 3100 - US Music: Social & Political Impact
- PSCI 3034 - Race, Gender, Law and Public Policy
- PSCI 3035 - Political Movements: Race and Gender
- PSYC 4485 - Psychology of Cultural Diversity
- RLST 4000 - Religion and Cultural Diversity
- SOCY 3020 - Race and Ethnicity in the U.S.
- THTR 3611 - Drama of Diversity

Total: 3 semester hours

International Perspectives

One course required.

A semester abroad may satisfy this requirement if preapproved and in a country where the language is not the native language of the student.

- ENGL 3798 - International Perspectives in Literature and Film
- ENGR 3600 - International Dimensions of Technology and Culture
- ETST 3110 - Indigenous Studies
- ETST 3272 - Global Media
- FREN 3200 - The Francophone World in the Post-Colonial Era
- GRMN 3200 - Current German Society and Culture
- HIST 3121 - The World at War, 1914-1945
- HIST 4032 - Globalization in World History Since 1945
- INTB 3000 - Global Perspectives

- PSCI 3022 - Introduction to Comparative Politics
- PSCI 3042 - Introduction to International Relations

Total: 3 semester hours

Core Total: 34-38 semester hours

Notes:

gtPATHWAYS Categories Key

Specific Core Requirements, College of Liberal Arts and Sciences

Specific Core Requirements, College of Arts & Media

Specific Core Requirements, Business School

Specific Core Requirements, College of Engineering and Applied Science

Specific Core Requirements, School of Public Affairs

SEHD Degree Programs and Associated State Licenses

School of Education and Human Development Degree Programs and Associated State Licenses

Programs	Approved Degrees	Licenses and Endorsements
Administrative Leadership and Policy Studies	Master of Arts: Administrative Leadership and Policy Studies Educational Specialist (EdS): Administrative Leadership and Policy Studies	Principal License Administrator License
Counseling	Master of Arts: Counseling	Public School Counselor License: 0–21 Encouraged to apply for licensure from the State of Colorado: Couples and Family Therapy Clinical Mental Health Counseling – Interdisciplinary Clinical Mental Health Counseling – Multicultural
Mathematics and Science (STEM) Education	Master of Arts: Curriculum and Instruction	Emphases: Elementary Mathematics or Science Elementary Mathematics/Science Secondary Mathematics or Science
Doctoral Studies in Education	Doctor of Education (EdD) in Leadership for Educational Equity Doctor of Philosophy (PhD) in Educational Studies and Research	EdD emphases: Instructional Leadership Executive Leadership

Early Childhood Education	Master of Arts: Early Childhood Education	Early Childhood Special Education Specialist Birth -8 License Early Childhood Special Education Specialist Birth -8 Added Endorsement
Educational Psychology	Master of Arts: Educational Psychology	Emphases: Human Learning Human Development Research & Evaluation Educational Assessment
Graduate and Undergraduate Teacher Licensure	Master of Arts: Curriculum and Instruction Educational Psychology Special Education College of Liberal Arts Degrees: Bachelor of Arts Bachelor of Science	Graduate Teacher Licensure: Elementary Education Secondary Education: Math, Science, Social Studies, English, Foreign Language Special Education: Generalist–K–12 Undergraduate Teacher Licensure: Elementary Education Secondary Education: Math, English, Science, Social Studies, Foreign Language
Information and Learning Technologies	Master of Arts: Information and Learning Technologies	Endorsements/emphases: • Adult Learning & Instructional Design • E-Learning Design and Implementation • K-12 Instructional Technology Teacher and Instructional Technology Specialist • School and Teacher Librarian

Linguistically Diverse Education	Master of Arts: Curriculum and Instruction	Endorsement/emphasis: • Linguistically Diverse Education
Literacy, Language and Culturally Responsive Teaching	Master of Arts: Curriculum and Instruction	Endorsements/emphases: • Reading Teacher: K–6, 7–12 • Secondary English Education
Special Education	Master of Arts: Special Education	Special Education Generalist K-12
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Accounting Courses (ACCT)

ACCT 2200 - Financial Accounting and Financial Statement Analysis

The financial accounting process, the role of the profession and the analysis of financial statements. Principal focus on interpretation of financial statements, with emphasis on asset and liability valuation problems and the determination of net income. Prereq: MATH 1070 and sophomore standing. A grade of 'C' or better is required in this course to proceed to ACCT 2220. **Semester Hours:** 3 to 3

ACCT 2220 - Managerial Accounting and Professional Issues

Introduces managerial accounting. Shows managers how to use accounting information to make decisions. Principal focus on cost behavior analysis, budgeting and product costing. Prereq: ACCT 2200 with a grade of 'C' or better and sophomore standing. Strictly enforced. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

ACCT 2550 - Introductory Accounting for Entrepreneurs and the Arts

An integration of financial and managerial accounting processes as they relate to Entrepreneurs, Arts & Media managers and similar applications. This course will cover the analysis and interpretation of financial statements, asset and liability valuation and the determination of net income. Incorporates the use of accounting information to make decisions focusing on cost behavior analysis, budgeting and product costing in entrepreneurial and arts related businesses. Prereq: MATH 1070 or 1110. **Semester Hours:** 3 to 3

ACCT 3220 - Intermediate Financial Accounting I

An intensive analysis of generally accepted accounting principles, accounting theory and preparation of annual financial statements for public corporations. Must complete course with a 'C' to qualify in graduation requirements. Prereq: 3.0 GPA average across both ACCT 2200 and ACCT 2220. Strictly enforced. **Semester Hours:** 3 to 3

ACCT 3230 - Intermediate Financial Accounting II

Selected topics not covered in ACCT 3220. Must complete course with a grade of 'C' to qualify in graduation requirements. Prereq: ACCT 3220, completed with a grade of a 'C' or better. Strictly enforced. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

ACCT 3320 - Intermediate Cost Accounting

Cost analysis for purposes of control and decision making. Analysis of cost behavior, role of accounting in planning and control, and managerial uses of cost accounting data. Includes use of computer assisted decision models. Must receive a 'C' grade to qualify in graduation requirements. Prereq: ACCT 2220, and DSCI 2010 completed with a grade of 'C' or better. Strictly enforced. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

ACCT 3939 - Internship

Supervised experiences involving the application of concepts and skills in an employment situation. Prereq: Senior standing and 3.5 GPA. **Semester Hours:** 1 to 3

ACCT 4030 - Financial Accounting

Analysis of financial accounting concepts, the development of accounting thought and principles and critical review of generally accepted accounting principles. (Not recommended for candidates planning to sit for the CPA examination.) Note: Students who have taken ACCT 3220 or ACCT 3230 (or equivalent) may not take this course. Prereq: ACCT 2200 and ACCT 2220 or equivalent. Must have a 'C' or better in courses. Strictly enforced. **Semester Hours:** 3 to 3

ACCT 4054 - Accounting Systems and Data Processing

The design and analysis of accounting information systems, with special emphasis on computers and computer programming, and the role of accounting in the management process. Must earn a grade of 'C' or better to qualify for graduation. Prereq: Completion of ACCT 2220 and ISMG 2050 with a grade of 'C' or better (Strictly enforced). Cross-listed with ACCT 6054. **Semester Hours:** 3 to 3

ACCT 4070 - Management Accounting

Designed to provide students with a foundation in management accounting models and information, with emphasis on management decision making uses of accounting information. (Not recommended for candidates planning to sit for the CPA examination.) Prereq: ACCT 2200 and 2220 or equivalent with a grade of a 'C' or better. Note: Students who have taken ACCT 3320 or its equivalent may not take this course. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ACCT 4240 - Advanced Financial Accounting

Advanced financial accounting concepts and practices with emphasis on accounting for partnerships, business combinations and consolidations. Prereq: Completion of ACCT 3230 with a grade of a 'C' or better. Strictly enforced. Cross-listed with ACCT 6024. **Semester Hours:** 3 to 3

ACCT 4282 - Capitalism, Accounting and Ethical Choices

Examines the development of the U.S. economy from 1850 to today with emphasis on the ethics of accounting, capitalism, and government controls. Prereq: ACCT 2220 or BUSN 6550. **Semester Hours:** 3 to 3

ACCT 4330 - Managerial Accounting Problems and Cases

Critical analysis of advanced topics in managerial accounting. Considerable use of cases and current readings. Prereq: Completion of ACCT 3320 with a grade of 'C'. Strictly enforced. **Semester Hours:** 3 to 3

ACCT 4370 - International Accounting

Designed to expose students to the international aspects of accounting and financial management. Includes discussion of some of the different financial accounting practices across countries; financial statement analysis in a global context, international auditing practices and procedures, international tax implications and the implications of operating within the regulations of the Foreign Corrupt Practices Act, the European Union, North American Free Trade Agreement and General Agreement on Tariffs and Trade. Prereq: Completion of ACCT

3220 with a grade of 'C' or better. Strictly enforced. Cross-listed with ACCT 6370 and INTB 6370. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ACCT 4410 - Income Tax Accounting

Provisions and procedures of federal income tax laws and requirements affecting individuals and business organizations, including problems of tax planning and compliance. Note: Students cannot receive credit for both ACCT 4410 and ACCT 6140. Prereq: ACCT 2220 completed with a grade of "C" or better. Strictly enforced. Cross-listed with ACCT 6140. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

ACCT 4490 - Experiential Learning

Designed to provide practical knowledge on developing a professional practice in accounting or financial management. Topics: Marketing, operating a professional practice. Lectures, guest speakers student projects. Prereq: ACCT 3220 completed with a 'C' or better, or permission of instructor. Cross-listed with ACCT 6490. **Semester Hours:** 3 to 3

ACCT 4520 - Oil and Gas Accounting

The Oil and Gas Accounting course is designed to give students an overview of the oil and gas industry and the particular accounting issues this industry faces. The focus is on the oil and gas industry but many of the issues discussed are appropriate and applicable to all energy-related entities. This is a valuable learning experience for those interested in acquiring an understanding of the accounting issues for energy management firms in preparation for entry into public accounting. The course enjoys support from the energy industry in the form of guest speakers and project ideas. Prereq: Completion of ACCT 3220 with a grade of 'C' or better. Strictly enforced. Cross-listed with ACCT 6520. **Semester Hours:** 3 to 3

ACCT 4620 - Auditing

Generally accepted auditing standards and the philosophy supporting them; auditing techniques available to the independent public accountant. Pertinent publications of the AICPS reviewed. Note: Students cannot receive credit for both ACCT 4620 and ACCT 6020. Prereq: ACCT 3054 and ACCT 3220 must be completed with a grade of a 'C' or better, strictly enforced. Cross-listed with ACCT 6020. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

ACCT 4625 - Auditing Practice

Focus on the application of generally accepted auditing standards and PCAOB auditing standards to practice. Emphasis on procedures used by CPAs to gather and document audit evidence. Note: Students cannot receive credit for both ACCT 4625 and ACCT 6025. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

ACCT 4780 - Accounting and Information Systems Processes and Controls

The course is designed to develop knowledge and skills used to understand and evaluate corporate accounting processes and systems. It focuses on financial and information system internal controls and the flow of corporate information through an accounting system. A financial system objective and risk assessment approach is used to present concepts and techniques for evaluating the adequacy of system processes and controls. Prereq: Completion of

ACCT 2200, ACCT 2220 and ACCT 3054 with a grade of 'C' or better (strictly enforced). Cross-listed with ACCT 6510, ISMG 4780, and ISMG 6510. **Semester Hours:** 3 to 3

ACCT 4800 - Accounting for Government and Nonprofit Organizations

Planning and control of government and nonprofit organizations. Includes program budgets, responsibility accounting and fund accounting. Prereq: Completion of ACCT 3220 with a grade of 'C' and permission of instructor, strictly enforced. Cross-listed with ACCT 6080. **Semester Hours:** 3 to 3

ACCT 4840 - Independent Study

Semester Hours: 1 to 8

ACCT 4915 - Accounting for the Public Interest

Applies accounting knowledge and concepts in a not-for-profit organization. Student volunteers help with functions or special projects and are supervised by both faculty members and personnel from the agency to which they are assigned. Prereq: Permission of instructor. Cross-listed with ACCT 6015. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

ACCT 4950 - Special Topics

Research methods and results, special topics and professional developments in accounting. Consult the current 'Schedule Planner' for semester offerings. Prereq: Varies according to topic and instructor requirements. **Semester Hours:** 3 to 3

ACCT 5939 - Internship

Semester Hours: 1 to 3

ACCT 6015 - Accounting for the Public Interest

Applies accounting knowledge and concepts in a not-for-profit organization. Student volunteers help with functions or special projects and are supervised by both faculty members and personnel from the agency to which they are assigned. Note: This class is rarely offered. Prereq: Permission of instructor. Cross-listed with ACCT 4915. **Semester Hours:** 3 to 3

ACCT 6020 - Auditing Theory

Focus on the professional responsibilities of CPAs, generally accepted auditing standards, and PCAOB auditing standards, with emphasis on the theory underlying the development of standards, objectives and procedures. Students cannot receive credit for both. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

ACCT 6024 - Advanced Financial Accounting

Advanced financial accounting concepts and practice with emphasis on accounting for partnerships, business combinations and consolidations. Prereq: ACCT 3230 or equivalent. Cross-listed with ACCT 4240. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

ACCT 6025 - Auditing Practice

Focus on the application of generally accepted auditing standards and PCAOB auditing standards to practice. Emphasis on procedures used by CPAs to gather and document audit

evidence. Students cannot receive credit for both ACCT 4625 and ACCT 6025. Prereq: A
Semester Hours: 3 to 3

ACCT 6030 - Financial Accounting

Accelerated analysis of financial accounting concepts, the development of accounting thought and principles and critical review of generally accepted accounting principles. Note: STUDENTS WHO HAVE TAKEN ACCT 3220 and ACCT 3230 (or equivalent) MAY NOT TAKE THIS COURSE. Student must take both ACCT 3220 AND 3230) Prereq: BUSN 6550 or equivalent.
Semester Hours: 3 to 3

ACCT 6033 - Advanced Managerial Accounting

Critical analysis of advanced topics in managerial accounting. Note: This class is rarely offered. Prereq: ACCT 3320. **Semester Hours:** 3 to 3

ACCT 6054 - Accounting Systems and Data Processing

The design and analysis of accounting information systems, with special emphasis on computers and computer programming, and the role of accounting in the management process. Prereq: Completion of ACCT 2220 and ISMG 2050 with a grade of "C" or better (strictly enforced). Cross-listed with ACCT 4054 (previously ACCT 3054) **Semester Hours:** 3 to 3

ACCT 6070 - Management Accounting

Designed to provide graduate business students with a foundation in management accounting models and information, with emphasis on management decision making uses of accounting information. Note: STUDENTS WHO HAVE TAKEN ACCT 3320 (or equivalent) MAY NOT TAKE THIS COURSE. Prereq: BUSN 6550 or equivalent. **Semester Hours:** 3 to 3

ACCT 6080 - Accounting for Government and Nonprofit Organizations

Nonprofit Organizations. Planning and control of government and nonprofit organizations. Includes program budgets, responsibility accounting and fund accounting. Prereq: ACCT 3220 or BUSN 6550 or permission of instructor. Cross-listed with ACCT 4800. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ACCT 6140 - Tax Planning for Managers

A Federal tax survey course with an emphasis on tax planning for the graduate student who wants to understand the impact of taxation on individual and business transactions. Course materials emphasize the application of individual, partnership and corporate tax principles to the decision making process. Prereq: BUSN 6550 or equivalent. Note: Students cannot receive credit for both ACCT 4410 and 6140. Cross-listed with ACCT 4410. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

ACCT 6250 - Seminar: Financial Accounting

Nature and origin of accounting theory and the development of postulates, principles and practices. Methodology appropriate to development and evaluation of accounting theory, with special emphasis on accepted research standards and procedures. Prereq: ACCT 3230 and ACCT

4620 or ACCT 6020 or concurrent registration in ACCT 4620 or ACCT 6020. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

ACCT 6260 - Seminar: Managerial Accounting

Focuses on the conceptual foundations of managerial accounting. Behavioral and quantitative approaches regarding information for decision making, planning, control, performance evaluation and other issues are investigated. Prereq: ACCT 3320 or ACCT 6070 (or equivalent).

Semester Hours: 3 to 3 **When Offered:** *FALL SPR*

ACCT 6280 - Professional Judgment and Decision Making in Accounting

Accounting is a process of providing economic information useful for decision making. This course provides (1) an opportunity to develop professional judgment skills, and (2) tools to make better decisions through an active, case-oriented learning method. Cases involve representative problems professional accountants face in financial reporting, audit, tax, business services, and practice management, including ethical conflicts and technical decisions. Participants learn to apply a structured decision model, incorporating critical, creative, evaluative and reflective judgment processes and learn how to recognize and avoid common decision errors and biases.

Prereq: ACCT 4620 or ACCT 6020. **Semester Hours:** 3 to 3

ACCT 6282 - Capitalism, Accounting and Ethical Choices

Examines the development of the U.S. economy from 1850 to today with emphasis on the ethics of accounting, capitalism, and government controls. Prereq: ACCT 2220 or BUSN 6550 (not strictly enforced). **Semester Hours:** 3 to 3

ACCT 6285 - Accounting and Finance for Sustainability

Topics in accounting and finance related to business sustainability include the merits and challenges of a triple-bottom-line perspective, mandatory and voluntary reporting, environmental liability measurement and disclosure, emissions trading, green investments, shareholder activism, microfinance, and socially responsible investing. **Semester Hours:** 3 to 3

ACCT 6290 - Management Control Systems

Focuses on the design and use of control systems which ensure that people in organizations behave consistently with the organizational goals. Controls for communication, motivation and performance evaluation (along with informational requirements) are stressed through analysis of cases and classroom discussion. Note: This class is rarely offered. Prereq: BUSN 6550 or equivalent. **Semester Hours:** 3 to 3

ACCT 6340 - Financial Statement Analysis

Financial statements are used as an information source on which to base investment, lending potential or even employment. Designed to develop skills in using, understanding, analyzing, and interpreting financial statements and to make students aware of the value and limitations of financial statement information. Note: Should take in the third semester of the graduate program. Prereq: BUSN 6550 or equivalent. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ACCT 6350 - Current Issues in Professional Accounting

An in-depth analysis of current issues in the accounting profession, including ethics development, and validity of standards and regulations. Prereq: ACCT 3230, ACCT 4620, ACCT 6020 or permission of instructor. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ACCT 6360 - Fraud Examination

This course examines the theories and methods of fraud examination in the context of auditing both for-profit and not-for-profit entities. Topics include identification of weaknesses in accounting controls, analytical review, and forensic accounting methods. Prereq: ACCT 4620 or ACCT 6020. **Semester Hours:** 3 to 3

ACCT 6370 - International Accounting

Designed to expose students to the international aspects of accounting and financial management. Includes discussion of some of the different financial accounting practices across countries; financial statement analysis in a global context, international auditing practices and procedures, international tax implications and the implications of operating within the regulations of the Foreign Corrupt Practices Act, the European Union, North American Free Trade Agreement and General Agreement on Tariffs and Trade. Prereq: BUSN 6550 or equivalent. Note: Students cannot receive credit for both ACCT 6370 and INTB 6370. IFRS's are reviewed and compared with the requirements of US GAAP. Cross-listed with INTB 6370 and ACCT 4370. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ACCT 6380 - Forensic Accounting

An examination of investigative auditing, fraud auditing, litigation support, and economic quantification of damages. Prereq: ACCT 4620 or ACCT 6020. **Semester Hours:** 3 to 3

ACCT 6400 - Taxation of Corporations and Shareholders

A study of federal income tax problems of corporations and corporate shareholders. Prereq: ACCT 4410 & 6140. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ACCT 6410 - Advanced Tax For Individuals

Advanced federal income tax course stressing the use of the Internal Revenue Code, Treasury regulations, case law, and administrative guidance to resolve federal income tax issues affecting individuals. Topics: items of gross income inclusion/exclusions, deductions, items of non-recognition, characterization of income, and tax rates. Prereq: ACCT 4410 or 6140. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ACCT 6420 - Taxation of Estates and Gifts

Introduction to principles and practices associated with the taxation of estates and gifts. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ACCT 6430 - International Taxation

International taxation focuses on the U.S. taxation of international transactions, including a review of the taxation systems in several countries. Includes different forms of doing business in several countries (e.g. in the U.S., would include sole proprietorship, partnerships, limited

liability companies and corporations), the ease of operating each form of business, identifying how business owners are protected from the business liabilities and risks and the different, if any, tax treatments afforded each form of business. Other topics include a review of tax rates, consumption regimes (e.g. value -added taxes), the taxation of U.S. expatriates, the tax consequences of repatriating profits to the U.S., the application of any tax treaties with the U.S. and related tax matters. Prereq: ACCT 4410 or ACCT 6140. **Semester Hours:** 3 to 3 **When Offered:** *SUMMER*

ACCT 6440 - Tax Practice and Procedures

A study of organization, policies, and procedures of federal and state taxing authorities. **Semester Hours:** 3 to 3

ACCT 6450 - Research Problems In Taxation

Study of the methodology used in tax research and tax planning, together with a study of some aspects of tax administration and tax practice and some aspects of the current law and proposals for its revision. Note: This class is rarely offered. Prereq: AC **Semester Hours:** 3 to 3

ACCT 6460 - Advance Topics in Taxation

Course will focus on advanced topics in tax planning for closely held businesses. Format: Lectures by expert tax professionals and questions/discussion on various topics with emphasis on current issues and trends. Prereq: ACCT 4410 or 6140. **Semester Hours:** 3 to 3

ACCT 6470 - Internal Auditing

Intro course for business students and CIA candidates. Topics include: IA fundamentals; IA standards; internal controls; managing the IA department; IA working papers, procedures and evidences; fraud detection and prevention; ethics; evaluation of the IA function, and Sarbanes-Oxley Act of 2002. Prereq: ACCT 4620 or ACCT 6020. **Semester Hours:** 3 to 3

ACCT 6480 - Partnership Taxation

Fundamentals of the Taxation of Partnerships and Partners. This class will focus on fundamental tax issues relating to partnerships and partners arising from the formation, operation, and liquidation of partnerships. Course work includes an examination of pertinent federal income tax returns of the partnership. Prereq: ACCT 4410 or 6140. **Semester Hours:** 3 to 3

ACCT 6482 - Advanced Partnership Taxation

Advanced federal income tax course focusing on the taxation of partnerships and their partners. Topics: "substantial economic effect", allocation of debt to partners' bases, "hot assets", profits interests, related-party transactions, distribution "waterfalls", profit and loss allocation "waterfalls", and taxation of retiring partners. **Semester Hours:** 3 to 3

ACCT 6490 - Experiential Learning

Designed to provide practical knowledge on developing a professional practice in accounting or financial management. Topics: Marketing, operating a professional practice. Lectures, guest speakers (if you are interested in being a guest lecturer for the class contact the instructor), and

student projects. Prereq: ACCT 3220 or permission of instructor. Cross-listed with ACCT 4490.
Semester Hours: 3 to 3

ACCT 6500 - Advanced Corporate Taxation

A study of the tax rules and problems relating to corporate organizations, reorganizations, commonly controlled corporations, and consolidated tax returns, with a special emphasis on the tax rules associated with restructuring of corporate entities in the context of corporate merger and acquisition transactions. Prereq: ACCT 6140 and 6400. **Semester Hours:** 3 to 3

ACCT 6510 - Accounting and Information Systems Processes and Controls

The course is designed to develop knowledge and skills used to understand and evaluate corporating accounting processes and systems. Focuses on financial and information system internal controls and the flow of corporate information through an accounting system. A financial system objective and risk assessment approach is used to present concepts and techniques for evaluating the adequacy of system processes and controls. Prereq: ACCT 4054 or ACCT 6054. Cross-listed with ACCT 4780, ISMG 4780 and 6510. **Semester Hours:** 3 to 3
When Offered: *FALL*

ACCT 6520 - Issues in Oil and Gas Accounting

The Oil and Gas Accounting course is a course designed to give students an overview of the oil and gas industry and the particular accounting issues this industry faces. The focus is on the oil and gas industry but many of the issues discussed are appropriate and applicable to all energy-related entities. This is a valuable learning experience for those interested in acquiring an understanding of the accounting issues for energy management firms in preparation for entry into public accounting. The course enjoys support from the energy industry in the form of guest speakers and project ideas. Prereq: BUSN 6550 or ACCT 3220 or permission of instructor. Cross-listed with ACCT 4520. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ACCT 6620 - Advanced Auditing

Development of auditing as a profession, including evolution of standards and audit reports. Historical and contemporary literature in the field reviewed. Prereq: ACCT 4620 or ACCT 6020 or equivalent. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

ACCT 6800 - Special Topics

Research methods and results, special topics and professional developments in accounting. Consult the current 'Schedule Planner' for semester offerings as new special topics courses are frequently added. Prereq: Varies according to topics and instructor requirements. **Semester Hours:** 3 to 3

ACCT 6840 - Independent Study

Permission of instructor required. Allowed only under special and unusual circumstances. Regularly scheduled courses cannot be taken as independent study. **Semester Hours:** 1 to 8

ACCT 6939 - Internship/Cooperative Education

Supervised experiences involving the application of concepts and skills in an employment situation. Prereq: 15 semester hours for MS students and 21 hours for MBA students and a cumulative 3.2 GPA. **Semester Hours:** 3 to 3

ACCT 6950 - Master's Thesis

Semester Hours: 1 to 8

Access-Counsel Psych/Counsel Courses (ACPC)

ACPC 5110 - Group Counseling

Semester Hours: 3 to 3

ACPC 5400 - Career Development

Semester Hours: 3 to 3

ACPC 5820 - Strategies in Agency Counseling

Semester Hours: 6 to 6

Anthropology Courses (ANTH)

ANTH 1000 - Anthropology: Past and Present

Anthropology is the study of humankind in all of its diversity and complexity. Anthropologists have traditionally approached the study from four distinct perspectives: biological, cultural, linguistic and archaeological. This course considers how anthropologists study humankind from these four perspectives and the robust picture of humanity that emerges. **Semester Hours:** 3 to 3

ANTH 1111 - Freshman Seminar

Semester Hours: 1 to 3

ANTH 1302 - Introduction to Archaeology

Introduces the study of past cultures and their environments. Emphasis is on the scientific method, aspects of research design and analytical techniques used by archaeologists to determine chronology, taphonomy, source production areas, exchange networks, and human-environment interactions. Note: Three hours of lecture and a two-hour lab each week.

Semester Hours: 4 to 4

ANTH 1303 - Introduction to Biological Anthropology

Introduces the study of human biological evolution, both processes and outcomes, from primate ancestors to fossil hominids to contemporary human populations. Methods of obtaining and interpreting data concerning the genetic, biological and evolutionary basis of physical variation in living and skeletal populations. Note: 3 hours of lecture and a 2 hour lab each week.

Semester Hours: 4 to 4

ANTH 2102 - Culture and the Human Experience

An application of the concept of culture to several aspects of the human experience, including gender relations, emotion and personality, cognition, language, health and healing and economic behavior. In exploring these dimensions of the human experience, the course focuses on selected cultures from each of the world's major geographic areas. **Semester Hours:** 3 to 3

ANTH 2400 - Video and Social Change

Introduction to video production and analysis applied to social change. Focus on theories and practices of non-fiction image-making and "doing visual ethnography" to examine a range of experience and knowledge among different societies, communities, policy discourses and ourselves. **Semester Hours:** 3 to 3

ANTH 2840 - Independent Study

Semester Hours: 1 to 3

ANTH 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 1 to 3

ANTH 3000 - Globalization, Migration and Transnationalism

Examines the cultural dynamics of globalization, including: the development of special economic zones in the global south, rural to urban migration, transnational migration, the maintenance of transnational ties, and cross-border social formations. Reviews the dynamics of globalization through case studies and film. **Semester Hours:** 3 to 3

ANTH 3006 - Sustainable Development and Equity

Investigates theories, policies and discourses of development and equity and their relationship to health, socio-environmental problems. Considers the connections between green environmental knowledge and neoliberalism, the success and failures of development along public health, economic equality, social justice and ecological lines. **Semester Hours:** 3 to 3

ANTH 3008 - Contemporary World Problems: An Anthropological Perspective

This course examines contemporary problems confronting humanity from an anthropological perspective - a historical, holistic and comparative framework that will be used to critically assess these issues and identify forces driving them. Problems to be addressed include climate and environmental change, resource depletion, and poverty and inequality. Prereq: Upper-division undergraduate standing and/or permission of the instructor. **Semester Hours:** 3 to 3

ANTH 3101 - Foundations of Cultural Anthropology

Covers current theories in cultural anthropology and discusses the nature of field work. Major schools of thought and actual field studies are explored with an emphasis on anthropological data gathering, analysis and writing. Prereq: Introductory course in cultural anthropology. **Semester Hours:** 3 to 3

ANTH 3121 - Language, Culture, and Communication

Definitions of language and communication and their relationship to human behavior, thought and culture. The classification of languages, linguistic universals, language acquisition, multilingualism, and nonhuman communication, with consideration of the evolutionary implications of such studies. Prereq: Introductory course in cultural anthropology. **Semester Hours:** 3 to 3

ANTH 3142 - Cultural Diversity in the Modern World

An in-depth analysis of the phenomena of culture and application of the culture concept to understanding cultural diversity in the modern world. Applies the concept of culture to several basic aspects of human social life, for example: social class and gender relations, ethnicity, racism and sexism, education, health and economic behavior. Students explore these issues in the context of case studies of particular groups and/or communities, focusing primarily on the diversity of cultural expression in contemporary U.S. **Semester Hours:** 3 to 3

ANTH 3150 - Special Topics in Medical Anthropology

Seminar series on current issues in medical anthropology. Faculty offer a range of different courses, including the political economy of drugs, health and human rights, and reproductive health. Prereq: Introductory course in cultural anthropology. **Semester Hours:** 3 to 3

ANTH 3200 - Human Migration: Nomads, Sojourners, and Settlers

Explores the relationship between human migration, voluntary and forced and social organization and culture in the modern world. Case studies include pastoralists, foragers, refugees, immigrants, sojourners and settlers and their impact on health, culture, identity, ethnicity, tradition and nationality. Cross-listed with HBSC 3200 and PBHL 3200. **Semester Hours:** 3 to 3

ANTH 3202 - Anthropology of Health Care Policy

Uses the tools and methods of cultural anthropology to analyze health care reform in the U.S. We examine analyses of the current health care system, debates over its reform, compare the US health care system to that of health care systems worldwide. **Semester Hours:** 3 to 3

ANTH 3210 - Urban Food Systems and Sustainability

Urbanites are increasingly removed from the complex of factors that provide us food. Being concerned about sustainability, we need to understand the complex webs in food systems and their implications for the health and natural systems. This problem-based course will wrestle with urban food systems organized to address the 3 E's of sustainability: environmental, economic, and equity. **Semester Hours:** 3 to 3

ANTH 3301 - World Prehistory

Explores of 3.5 million years of human cultural development that examines the prehistory of Africa, Asia, Europe and the Americas. Patterns and processes that underlie the earliest hominid expansion out of Africa, tool use, origins of fire, the peopling of the Americas, the development of metallurgy, the domestication of plants and animals and the rise of cities and the state are examined. Emphasis is on both regional developments and landmark projects that have helped clarify prehistory. Note: Introductory course in Archaeology (ANTH 1302) recommended. **Semester Hours:** 3 to 3

ANTH 3310 - Colorado Archaeology

A survey of the prehistoric and protohistoric peoples of the five major culture areas of Colorado: the Four Corners, Great Basin, Rocky Mountains, High Plains, and Front Range. Of special interest will be the study of the initial peopling of Colorado, economic and political organization, ethnic interaction and the history of archaeological work in the region. Prereq: ANTH 1302. **Semester Hours:** 3 to 3

ANTH 3320 - Southwestern Archaeology

Considers the origins, characteristics, and interrelationships of the major culture areas in the American southwest, including the Anasazi, Hohokam, Mogollon, Sinagua and Northern Mexico. Note: ANTH 1302 recommended but not required. **Semester Hours:** 3 to 3

ANTH 3330 - Topics in Archaeology

A flexible format for addressing specific topics in archaeology. Examples include the archaeology of the Great Plains, the Mediterranean Region, etc. Prereq: An introductory course in archaeology. **Semester Hours:** 3 to 3

ANTH 3410 - Anthropology of Work

Explores the culture of workforces and workplaces. Ethnographic methods and collaborative research practices comprise the framework of the course to examine people, occupations and work cultures engaged in production and consumption of commodities at local and global levels.

Semester Hours: 3 to 3

ANTH 3420 - Anthropology and Politics of the Global Tobacco Epidemic

Examines anthropological perspectives on tobacco, tobacco-related health policymaking, and cigarette manufacturers and leaf-buying companies in the global tobacco epidemic.

Semester Hours: 3 to 3

ANTH 3500 - Human Osteology

Provides in-depth knowledge of human osteology, including the following topics: skeletal anatomy; age, sex and stature determination; skeletal trauma/pathology; and taphonomy. Recitation component provides hands-on experience with skeletal material. Prereq: ANTH 1303.

Semester Hours: 4 to 4

ANTH 3512 - Human Evolution

Provides an overview of the fossil and archaeological evidence for human origins. Theory and method in paleoanthropology is emphasized. The goal is to outline current knowledge of human biological evolution and the lifeways of our evolutionary relatives. Prereq: ANTH 1303.

Semester Hours: 3 to 3

ANTH 3590 - Primate Behavior Research at the Zoo

Students will review information on primates, learn about data collection models, design a behavior observation project on captive primates, collect and analyze behavior data, write and present a formal scientific paper.

Semester Hours: 3 to 3

ANTH 3666 - Anthropology of Death

The primary goal of the course is to identify and understand the range of human expression through the treatment of human remains in anthropological literature with focus on burials, mortuary practices, and associated rituals. Along with more theoretical papers, specific case studies will be used to address a variety of topics and issues, such as historic and prehistoric social organization, bio-archaeology, cannibalism, human sacrifice, mummification, the ethics of studying human remains, and the treatment of pets in prehistory. The time range that we will cover in the course will span from the Neolithic to the early 20th century, and numerous cultures from all parts of the globe will be our subject matter.

Semester Hours: 3 to 3

ANTH 3700 - Current Topics in Anthropology

This undergraduate course offers a flexible format for addressing specific topics of special interest in anthropology, such as: aging, race and prejudice, class, warfare and aggression, ethnicity, myth and folklore, language and communication, Colorado prehistory and topics in evolutionary theory.

Semester Hours: 3 to 3

ANTH 3910 - Cross-Cultural Field Experience

An intensive contact with another culture through supervised travel in the U.S. or in a country other than the United States. Written reports required. Note: Class includes pre-trip orientation lectures; in-country lectures by local resource people and supervising CU-Denver faculty.

Semester Hours: 3 to 6

ANTH 3939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

ANTH 4000 - Special Topics in Anthropology

Designed to give students a chance to evaluate critically some practical or theoretical problem under faculty supervision and to present results of their thinking to fellow students and instructors for critical evaluation. Prereq: Permission of instructor. Cross-listed with ANTH 5000. **Semester Hours:** 1 to 4

ANTH 4010 - Medical Anthropology: Global Health

This course is concerned with the underlying biological and cultural determinants of health throughout the human life cycle in global and cross-cultural perspective. Note: The first of a two-course sequence in medical anthropology and global health studies; the second is ANTH 4020. Prereq: Upper division and/or graduate standing. Cross-listed with ANTH 5014.

Semester Hours: 3 to 3

ANTH 4030 - Ethnobiology

Considers the relationship between human society and plants and animals in the natural world. Primary focus on the perception and cognitive organization of the environment and how that affects the definition and use of plants and animals as resources. Prereq: Introductory anthropology and/or biology. Cross-listed with ANTH 5030. **Semester Hours:** 3 to 3

ANTH 4040 - Anthropology of Food and Nutrition

Examines the myriad relationships between food as a biological necessity and eating as a socially and culturally conditioned activity. Takes a biocultural perspective that considers not only the tremendous variety of foods we eat, but also the complex meanings and importance attached to food and eating. Prereq: Introductory course in anthropology. Cross-listed with ANTH 5040.

Semester Hours: 3 to 3

ANTH 4050 - Quantitative Methods in Anthropology

Surveys the ways of deriving meaning from anthropological data by numerical means, including, but not confined to basic statistical procedures. Prereq: College-level algebra or its equivalent. Cross-listed with ANTH 5053. **Semester Hours:** 3 to 3

ANTH 4060 - Evolutionary Medicine

Applies evolutionary principles to an understanding of human health and illness. The view complements perspectives on health and disease emanating from biological and social sciences, but considers the health or disease process from the perspective of pathogen and host, current

and previous environments, and various phases of the life cycle. Prereq: ANTH 1303. Cross-listed with ANTH 5060, HBSC 4060 and 5060, PBHL 4060. **Semester Hours:** 3 to 3

ANTH 4070 - Culture of Development and Globalization

Anthropological critiques of development and globalization point out that they have occurred without regard for the diversity of human culture and human need. Beginning with this analysis, this course goes one step further by examining culture and values of development and how they affect the way development gets done. Prereq: Upper division standing and permission of instructor. Cross-listed with ANTH 5070. **Semester Hours:** 3 to 3

ANTH 4080 - Global Health Practice

A travel-study course that provides students the opportunity to work on global health issues in the context of a supervised internship experience. In addition to a formal internship placement or directed research opportunity, students attend formal lectures and participate in seminars devoted to addressing those health issues most relevant to the country in which the course is being taught. Prereq: HBSC/ANTH 4010/5014, HBSC/ANTH 4020/5024, HLTH 6070 or equivalent. Cross-listed with ANTH 5080, HBSC 4080 and 5080, PBHL 4080. **Semester Hours:** 3 to 3

ANTH 4090 - Political Economy of Drugs

Psychotropic drugs, both legal and illicit, are a predominant part of our everyday lives. This course examines their use and meaning within cultures, and the social, political and economic issues that surround their production, use and misuse. Prereq: introductory course in cultural anthropology. Cross-listed with ANTH 5090, HBSC 4090/5090, and PBHL 4090. **Semester Hours:** 3 to 3

ANTH 4150 - Human Biocultural Adaptability

The chief concern of this course is the relationship between ourselves and our surroundings and the very immediate ways the environments in which we live affect us. The view is of ourselves as a part of, not apart from, these environments. Prereq: ANTH 1303 and 2102 or equivalent. Cross-listed with ANTH 5150. **Semester Hours:** 3 to 3

ANTH 4170 - Culture and the Environment

Examines the historical origins of Western and non-Western ideas of the environment and the place of people within it. The imposition of Western ideas on non-Western groups regarding environmental policy is also examined, with special attention given to practices of conservation, development and transnational monetary policy. Prereq: ANTH 2102 or equivalent. Cross-listed with ANTH 5170. **Semester Hours:** 3 to 3

ANTH 4180 - The Nature of Power

Introduces the major theories of power used in contemporary anthropology, with an emphasis on cross-cultural perspectives. Explores how power is defined, determined and exercised globally and locally and how different systems of power articulate with one another. Prereq: ANTH 2102 or equivalent. Cross-listed with ANTH 5180. **Semester Hours:** 3 to 3

ANTH 4200 - Gender in Cross-Cultural Perspective

A comparative analysis of gender-based status and social roles of women and men, with women's status and roles emphasized due to their near-universal construction as the "Other" sex. Examines in cross- and sub-cultural context the relations among women's status and their subsistence and reproductive activities; and the division of labor by sex, ideology and political economy. Prereq: ANTH 2102 or equivalent. Cross-listed with ANTH 5200. **Semester Hours:** 3 to 3

ANTH 4230 - Anthropology and Community Based Participatory Research

The seminar explores anthropological critiques, knowledge production and multi-media approaches to community based participatory research (CBPR) such as photovoice and digital storytelling to understand the history of CBPR and analyze partnerships between university researchers and community representatives. Cross-listed with ANTH 5230. **Semester Hours:** 3 to 3

ANTH 4260 - Human Reproductive Ecology

Considers the determinants of fertility variation within and among traditional human societies. Biocultural and ecological perspectives on pubertal timing, marriage patterns, birth seasonality, duration of birth intervals and reproductive senescence. Prereq: ANTH 1303 or equivalent. Cross-listed with ANTH 5260. **Semester Hours:** 3 to 3

ANTH 4290 - Anthropology and Public Health

This course critically explores anthropological approaches to public health problems. Through a number of key issues and case studies, we examine how public health practice can be enhanced through anthropological research, theory and methodology. Prereq: upper division standing. Cross-listed with ANTH 5290. **Semester Hours:** 3 to 3

ANTH 4300 - Migrant Health

This course examines health issues associated with transnational migration from an anthropological point of view. Drawing upon case studies, we examine the health of migrant communities in both host and sending nations. Prereq: upper division standing. Cross-listed with ANTH 5300. **Semester Hours:** 3 to 3

ANTH 4320 - Archaeology of Mexico and Central America

Surveys the major prehistoric and protohistoric cultures and societies of that area of Mexico and Central America identified with the evolution of Meso-American civilization. Major topics include early human colonization of the Americas, the domestication of plants and animals, the emergence of regionally-based cultures and societies, trade and exchange and the evolution of urbanism and the state. Primary emphasis on such ancient cultures and societies as those of the Olmec, Zapotec, Maya, Teotihuacan, Toltec and Aztec. Prereq: Introduction to archaeology. Cross-listed with ANTH 5320. **Semester Hours:** 3 to 3

ANTH 4330 - Lithic Analysis

Examines the theoretical basis and methodological tools used by archaeologists in the analysis of prehistoric stone tools. Topics of discussion include the mechanics of stone fracture,

typologies, use wear analysis and core reduction techniques. Prereq: ANTH 1302. Cross-listed with ANTH 5330. **Semester Hours:** 3 to 3

ANTH 4380 - Archaeology of Hunters-Gatherers

Explores the theory and methods used by archaeologists to investigate prehistoric hunter gatherers. Topics of concern include mobility, subsistence, procurement, and socio-political organization. Prereq: ANTH 1302 Cross-listed with ANTH 5380. **Semester Hours:** 3 to 3

ANTH 4390 - Laboratory Methods in Archaeology

Methods and theories of archaeology are used to scrutinize the collection and interpretation of data and the relationships of archaeology to other disciplines. Core materials emphasize the critique of basic archaeological assumptions. Note: Course content varies slightly each time it is offered, in response to student needs and the availability of projects (e.g., laboratory work, urban excavation, survey and mapping). May be repeated for credit when topics change. Prereq: ANTH 1302 or equivalent. **Semester Hours:** 3 to 3

ANTH 4400 - Archaeology of Power and Inequality

Addresses inequality and power through a long-term archaeological and theoretical perspective. Discusses explanations for the origins of power and inequality and their role in early small-scale societies and emerging complex politics. Prereq: ANTH 1302 or equivalent. Cross-listed with ANTH 5400. **Semester Hours:** 3 to 3

ANTH 4450 - Development and Conservation: Contemporary Issues

Applies the theoretical paradigms of political ecology to contemporary issues of sustainable development. Case studies are chosen illustrating topics based on faculty expertise and student interaction. The first part of the course presents theoretical perspectives relevant to the chosen topic. In the second half, students participate in directed problem solving activities. Prereq: ANTH 4070, ANTH 4170 and graduate standing or permission of instructor. Cross-listed with ANTH 5450. **Semester Hours:** 3 to 3

ANTH 4460 - Development and Conservation: Theory and Practice

Examines the praxis of anthropological knowledge of human ecosystem interaction and development of economic opportunities. Issues of biodiversity, resource conservation, sustainable development and globalization are studied. Prereq: ANTH 4450 or permission of instructor. Cross-listed with ANTH 5460. **Semester Hours:** 3 to 3

ANTH 4500 - Advanced Issues in Human Evolution

This flexible course offers an advanced treatment of issues in human biological evolution. Topics may emphasize morphological evolution, behavioral evolution, the environment of human evolution, non-human primate comparative information. Prereq: ANTH 1303 and 3512 or equivalent. Cross-listed with ANTH 5500. **Semester Hours:** 3 to 3

ANTH 4550 - Primate Comparative Anatomy

Examines human and non-human primate anatomical diversity. Students learn primate anatomy and the morphological differences among species. Explanations for the evolutionary

origins of differences are reviewed, focusing on evolutionary theory, comparative methods and biomechanics. Prereq: ANTH 1303 or equivalent. Cross-listed with ANTH 5550. **Semester Hours:** 3 to 3

ANTH 4560 - Human Ecology

Studies demographic and ecological variables as they relate to human populations. Aspects of natural selection, overpopulation and environmental deterioration are considered. Prereq: Introductory course in biological or physical anthropology. Cross-listed with ANTH 5560. **Semester Hours:** 3 to 3

ANTH 4570 - Landscape Archaeology

Introduces spatial archaeology through intrasite analysis and regional studies. Methods treated include site location and quantitative spatial organization. Theoretical topics include definitions of community, ancient urbanism and the impact of subsistence and politics on relations to the landscape. Prereq: ANTH 1302 or equivalent. Cross-listed with ANTH 5570. **Semester Hours:** 3 to 3

ANTH 4580 - Neanderthals and the Origin of Modern Humans

Focuses on the human fossil record for the taxon *Homo sapiens*, including the earliest members of this group ("early" or "archaic" *Homo sapiens*), the Neanderthals and so-called "anatomically modern" *Homo sapiens*. The goal of the course is to survey the major issues within the area of modern human origins, and to learn about the evolutionary relationships, lifeways and behaviors of these groups. Prereq: ANTH 1303 or equivalent. Cross-listed with ANTH 5580. **Semester Hours:** 3 to 3

ANTH 4590 - Primate Behavior

Studies nonhuman primate behavior with emphasis on understanding social behavior, ecology and issues related to human evolution. Prereq: ANTH 1303 or equivalent. Cross-listed with ANTH 5590. **Semester Hours:** 3 to 3

ANTH 4600 - Medical Anthropology

Introduces students to the theories and concepts of medical anthropology, the study of human health and illness. Explores conceptions of the body, modalities of healing, the clinical encounter, and new medical technologies. Prereq: Upper-division standing. Cross-listed with ANTH 5600. **Semester Hours:** 3 to 3

ANTH 4640 - Darwinian Approach to Human Behavior

The evolution of human behaviors from a Darwinian perspective, focusing on the natural selection of behaviors that maximize reproductive success. Includes topics such as male and female reproductive strategies, female mate choice, male violence and resource acquisition and control. Prereq: ANTH 1303. Cross-listed with ANTH 5640. **Semester Hours:** 3 to 3

ANTH 4800 - Special Topics in Medical Anthropology

Seminar series on current issues in medical anthropology. Faculty offer a range of different courses, including the political economy of drugs, health and human rights, and reproductive

health. Prereq: upper division standing. Cross-listed with ANTH 5800. **Semester Hours:** 3 to 3

ANTH 4810 - Integrating Anthropology

Designed to build on specialized course work in the subdisciplines of anthropology, this course emphasizes the basic concepts that integrate and unite the discipline and give it unique perspective. These are the concepts of culture, adaptation and human evolution. In the last several weeks of the course, students consider the applicability of the anthropological perspective to specific human issues. Note: Centers on the critical examination and discussion of presentations made by department faculty and graduate students. Prereq: junior or senior standing and course work equivalent to a minor in anthropology. Cross-listed with ANTH 5810. **Semester Hours:** 3 to 3

ANTH 4840 - Independent Study

Directed study based on a specific subfield of anthropology. Note: Permission of instructor required. **Semester Hours:** 1 to 3

ANTH 4910 - Field Experience in Archaeology

Students participate in archaeological field research and data recovery and conduct laboratory analysis of materials recovered in the field. Emphasis is placed on excavation technique and accuracy of record keeping. Prereq: Introductory course in archaeology. Cross-listed with ANTH 5910. **Semester Hours:** 3 to 6

ANTH 4995 - Travel Study

A flexible format that permits courses to be taught in various areas of the world. Cultures of the Himalayas. Concerned broadly with contemporary Himalayan culture. Focuses on Tibetan cultures and the Tibetan diaspora, and the Nepalese (Newari) culture of **Semester Hours:** 3 to 9

ANTH 5000 - Special Topics in Anthropology

Designed to give students a chance to evaluate critically some practical or theoretical problem under faculty supervision and to present results of their thinking to fellow students and instructors for critical evaluation. Prereq: Permission of instructor. Cross-listed with ANTH 4000. **Semester Hours:** 1 to 6

ANTH 5014 - Medical Anthropology: Global Health

This course is concerned with the underlying biological and cultural determinants of health throughout the human life cycle in global and cross-cultural perspective. Note: The first of a two-course sequence in medical anthropology and global health studie **Semester Hours:** 3 to 3

ANTH 5030 - Ethnobiology

Considers the relationship between human society and plants and animals in the natural world. Primary focus on the perception and cognitive organization of the environment and how that affects the definition and use of plants and animals as resources. Prereq: Introductory

anthropology and/or biology and graduate standing. Cross-listed with ANTH 4030. **Semester Hours:** 3 to 3

ANTH 5040 - Anthropology of Food and Nutrition

Examines the myriad relationships between food as a biological necessity and eating as a socially and culturally conditioned activity. Takes a biocultural perspective that considers not only the tremendous variety of foods we eat, but also the complex meanings and importance attached to food and eating. Prereq: Introductory course in anthropology and graduate standing. Cross-listed with ANTH 4040. **Semester Hours:** 3 to 3

ANTH 5053 - Quantitative Methods in Anthropology

Surveys the ways of deriving meaning from anthropological data by numerical means, including, but not confined to basic statistical procedure. Prereq: College-level algebra and graduate standing. Cross-listed with ANTH 4050. **Semester Hours:** 3 to 3

ANTH 5060 - Evolutionary Medicine

Applies evolutionary principles to an understanding of human health and illness. The view complements perspectives on health and disease emanating from biological and social sciences, but considers the health or disease process from the perspective of pathogen and host, current and previous environments, and various phases of the life cycle. Prereq: ANTH 1303. Cross-listed with ANTH 4060, HBSC 4060 and 5060, PBHL 4060. **Semester Hours:** 3 to 3

ANTH 5070 - Culture of Development and Globalization

Anthropological critiques of development and globalization point out that they have occurred without regard for the diversity of human culture and human need. Beginning with this analysis, this course goes one step further by examining culture and values of development and how they affect the way development gets done. Prereq: Upper division standing and permission of instructor. Cross-listed with ANTH 4070. **Semester Hours:** 3 to 3

ANTH 5080 - Global Health Practice

A travel-study course that provides students the opportunity to work on global health issues in the context of a supervised internship experience. In addition to a formal internship placement or directed research opportunity, students attend formal lectures and participate in seminars devoted to addressing those health issues most relevant to the country in which the course is being taught. Prereq: HBSC/ANTH 5014/4010, HBSC/ANTH 5024/4020, HLTH 6070 or equivalent. Cross-listed with ANTH 4080, HBSC 5080 and 4080, PBHL 4080. **Semester Hours:** 3 to 3

ANTH 5090 - Political Economy of Drugs

Psychotropic drugs, both legal and illicit, are a predominant part of our everyday lives. This course examines their use and meaning within cultures, and the social, political and economic issues that surround their production, use and misuse. Prereq: introductory course in cultural anthropology. Cross-listed with ANTH 4090, HBSC 4090/5090, and PBHL 4090. **Semester Hours:** 3 to 3

ANTH 5150 - Human Biocultural Adaptability

The chief concern of this course is the relationship between ourselves and our surroundings and the very immediate ways the environments in which we live affect US. The view is of ourselves as a part of, not apart from, these environments. Prereq: Background in cultural anthropology and graduate standing. Cross-listed with ANTH 4150. **Semester Hours:** 3 to 3

ANTH 5170 - Culture and the Environment

Examines the historical origins of Western and non-Western ideas of the environment and the place of people within it. The imposition of Western ideas on non-Western groups regarding environmental policy is also examined, with special attention given to practices of conservation, development and transnational monetary policy. Prereq: ANTH 2102 or equivalent. Cross-listed with ANTH 4170. **Semester Hours:** 3 to 3

ANTH 5180 - The Nature of Power

Introduces the major theories of power used in contemporary anthropology, with an emphasis on cross-cultural perspectives. Explores how power is defined, determined and exercised globally and locally and how different systems of power articulate with one another. Prereq: ANTH 2102 or equivalent. Cross-listed with ANTH 4180. **Semester Hours:** 3 to 3

ANTH 5200 - Gender in Cross-Cultural Perspective

A comparative analysis of gender-based status and social roles of women and men, with women's status and roles emphasized due to their near-universal construction as the "other" sex. Examines, in cross- and sub-cultural context, the relations among women's status and their subsistence and reproductive activities; and the division of labor by sex, ideology and political economy. Prereq: Graduate standing. Cross-listed with ANTH 4200. **Semester Hours:** 3 to 3

ANTH 5230 - Anthropology and Community Based Participatory Research

The seminar explores anthropological critiques, knowledge production and multi-media approaches to community based participatory research (CBPR) such as photovoice and digital storytelling to understand the history of CBPR and analyze partnerships between university researchers and community representatives. Cross-listed with ANTH 4230. **Semester Hours:** 3 to 3

ANTH 5260 - Human Reproductive Ecology

Considers the determinants of fertility variation within and among traditional human societies. Biocultural and ecological perspectives on pubertal timing, marriage patterns, birth seasonality, duration of birth intervals and reproductive senescence. Prereq: ANTH 1303 or equivalent. Cross-listed with ANTH 4260. **Semester Hours:** 3 to 3

ANTH 5290 - Anthropology and Public Health

This course critically explores anthropological approaches to public health problems. Through a number of key issues and case studies, we examine how public health practice can be enhanced through anthropological research, theory and methodology. Prereq: graduate standing. Cross-listed with ANTH 4290. **Semester Hours:** 3 to 3

ANTH 5300 - Migrant Health

This course examines health issues associated with transnational migration from an anthropological point of view. Drawing upon case studies, we examine the health of migrant communities in both host and sending nations. Prereq: graduate standing. Cross-listed with ANTH 4300. **Semester Hours:** 3 to 3

ANTH 5320 - Archaeology of Mexico and Central America

Surveys the major prehistoric and protohistoric cultures and societies of that area of Mexico and Central America identified with the evolution of Meso-American civilization. Major topics include early human colonization of the Americas, the domestication of plants and animals, the emergence of regionally-based cultures and societies, trade and exchange and the evolution of urbanism and the state. Primary emphasis on such ancient cultures and societies as those of the Olmec, Zapotec, Maya, Teotihuacan, Toltec and Aztec. Prereq: Introduction to archaeology. Cross-listed with ANTH 4320. **Semester Hours:** 3 to 3

ANTH 5330 - Lithic Analysis

Examines the theoretical basis and methodological tools used by archaeologists in the analysis of prehistoric stone tools. Topics of discussion include the mechanics of stone fracture, typologies, use wear analysis and core reduction techniques. Prereq: ANTH 1302. Cross-listed with ANTH 4330. **Semester Hours:** 3 to 3

ANTH 5380 - Archaeology of Hunters-Gatherers

Explores the theory and methods used by archaeologists to investigate prehistoric hunter gatherers. Topics of concern include mobility, subsistence, procurement, and socio-political organization. Prereq: ANTH 1302 Cross-listed with ANTH 4380. **Semester Hours:** 3 to 3

ANTH 5400 - Archaeology of Power and Inequality

Addresses inequality and power through a long-term archaeological and theoretical perspective. Discusses explanations for the origins of power and inequality and their role in early small-scale societies and emerging complex politics. Prereq: ANTH 1302 or equivalent. Cross-listed with ANTH 4400. **Semester Hours:** 3 to 3

ANTH 5450 - Development and Conservation: Contemporary Issues

Applies the theoretical paradigms of political ecology to contemporary issues of sustainable development. Case studies are chosen illustrating topics based on faculty expertise and student interaction. The first part of the course presents theoretical perspectives relevant to the chosen topic. In the second half, students participate in directed problem solving activities. Prereq: ANTH 4070, ANTH 4170 and graduate standing or permission of instructor. Cross-listed with ANTH 4450. **Semester Hours:** 3 to 3

ANTH 5460 - Development and Conservation: Theory and Practice

Examines the praxis of anthropological knowledge of human ecosystem interaction and development of economic opportunities. Issues of biodiversity, resource conservation, sustainable development and globalization are studied. Prereq: ANTH 5450 or permission of instructor. Cross-listed with ANTH 4460. **Semester Hours:** 3 to 3

ANTH 5500 - Advanced Issues in Human Evolution

This flexible course offers an advanced treatment of issues in human biological evolution. Topics may emphasize morphological evolution, behavioral evolution, the environment of human evolution, non-human primate comparative information. Cross-listed with ANTH 4500.

Semester Hours: 3 to 3

ANTH 5530 - Anthropological Genetics

An advanced survey of molecular and population genetics and their applications in anthropology. Topics vary, including but not limited to: genetic epidemiology, genetic distance studies, behavioral genetics, developmental genetics, sociobiology, and use of mitochondrial DNA to reconstruct population histories. Emphasis is on applications of new technology and methodology, as well as new genetic paradigms replacing classical models of genetic causation.

Prereq: Undergraduate course work in biological anthropology or general genetics. **Semester Hours:** 3 to 3

ANTH 5550 - Primate Comparative Anatomy

Examines human and non-human primate anatomical diversity. Students learn primate anatomy and the morphological differences among species. Explanations for the evolutionary origins of differences are reviewed, focusing on evolutionary theory, comparative methods and biomechanics. Prereq: ANTH 1303 or equivalent. Cross-listed with ANTH 4550. **Semester**

Hours: 3 to 3

ANTH 5560 - Human Ecology

Studies demographic and ecological variables as they relate to human populations. Aspects of natural selection, overpopulation and environmental deterioration are considered. Prereq: Background in biological or physical anthropology and graduate standing. Cross-listed with ANTH 4560. **Semester Hours:** 3 to 3

ANTH 5570 - Landscape Archaeology

Introduces spatial archaeology through intrasite analysis and regional studies. Methods treated include site location and quantitative spatial organization. Theoretical topics include definitions of community, ancient urbanism and the impact of subsistence and politics on relations to the landscape. Prereq: ANTH 1302 or equivalent. Cross-listed with ANTH 4570. **Semester Hours:** 3 to 3

ANTH 5580 - Neanderthals and the Origin of Modern Humans

Focuses on the human fossil record for the taxon *Homo sapiens*, including the earliest members of this group ("early" or "Archaic" *Homo sapiens*), the Neanderthals and so-called "Anatomically modern" *Homo sapiens*. The goal of the course is to survey the major issues within the area of modern human origins, and to learn about the evolutionary relationships, lifeways and behaviors of these groups. Prereq: ANTH 1303 or equivalent. Cross-listed with ANTH 4580.

Semester Hours: 3 to 3

ANTH 5590 - Primate Behavior

Studies nonhuman primate behavior with emphasis on understanding social behavior, ecology and issues related to human evolution. Prereq: ANTH 1303 or equivalent. Cross-listed with ANTH 4590. **Semester Hours:** 3 to 3

ANTH 5600 - Medical Anthropology

Introduces students to the theories and concepts of medical anthropology, the study of human health and illness. Explores conceptions of the body, modalities of healing, the clinical encounter, and new medical technologies. Prereq: Graduate standing. Cross-listed with ANTH 4600. **Semester Hours:** 3 to 3

ANTH 5640 - Darwinian Approach to Human Behavior

The evolution of human behaviors from a Darwinian perspective, focusing on the natural selection of behaviors that maximize reproductive success. Includes topics such as male and female reproductive strategies, female mate choice, male violence and resource acquisition and control. Prereq: ANTH 1303. Cross-listed with ANTH 4640. **Semester Hours:** 3 to 3

ANTH 5800 - Special Topics in Medical Anthropology

Seminar series on current issues in medical anthropology. Faculty offer a range of different courses, including the political economy of drugs, health and human rights, and reproductive health. Prereq: graduate standing. Cross-listed with ANTH 4800. **Semester Hours:** 3 to 3

ANTH 5810 - Integrating Anthropology

Designed to build on specialized course work in the subdisciplines of anthropology, this course emphasizes the basic concepts that integrate and unite the discipline and give it unique perspective. These are the concepts of culture, adaptation and human evolution. In the last several weeks of the course, students consider the applicability of the anthropological perspective to specific human issues. Note: Centers on the critical examination and discussion of presentations made by department faculty and graduate students. Cross-listed with ANTH 4810. **Semester Hours:** 3 to 3

ANTH 5840 - Independent Study

Directed study based on a specific subfield of anthropology. Prereq: Permission of instructor required. **Semester Hours:** 1 to 6

ANTH 5910 - Field Experience in Archaeology

Students participate in archaeological field research and data recovery and conduct laboratory analysis of materials recovered in the field. Emphasis is placed on excavation technique and accuracy of record keeping. Prereq: Background in archaeology and graduate standing. Cross-listed with ANTH 4910. **Semester Hours:** 3 to 6

ANTH 5939 - Internship

Semester Hours: 1 to 6

ANTH 5995 - Travel Study

A flexible format that permits courses to be taught in various areas of the world. Cultures of the Himalayas. Concerned broadly with contemporary Himalayan culture. Focuses on Tibetan cultures and the Tibetan diaspora, and the Nepalese (Newari) culture of **Semester Hours:** 3 to 9

ANTH 6000 - Seminar in Current Research Topics

An inquiry into current research of critical and general interest to anthropologists. Variable format. Prereq: Permission of instructor. **Semester Hours:** 1 to 3

ANTH 6040 - Advanced Topics in Medical Anthropology

A flexible seminar format for dealing with topics of special interest in medical anthropology on an advanced graduate level. Topics to be considered vary from semester to semester. Examples include high altitude adaptation, anthropological perspectives on substance abuse, epidemiology, environmental and occupational health, the health consequences of cultural change and cross-cultural psychiatry. Note: Topics vary from semester to semester. Prereq: Permission of instructor. **Semester Hours:** 1 to 4

ANTH 6041 - Human Genetics: Legal, Ethical and Social Issues

Examines legal, ethical and social issues that have come about with advances in human genetics. Topics include privacy, informed consent, discrimination, forensics, medical malpractice and property rights. Prereq: Graduate standing. Cross-listed with HBSC 6320 and 7320. **Semester Hours:** 3 to 3

ANTH 6063 - Qualitative Research Design and Methods

Much of the data collected in the social sciences is interview and text-based. This course explores methods for collecting and analyzing these data and theoretical paradigms that underlie these methods. Cross-listed with HBSC 7051. **Semester Hours:** 3 to 3

ANTH 6103 - Current Theory in Ethnography

An in-depth inquiry into important theories in cultural anthropology through extensive primary source reading. Practice in formulating theory, critical thinking and theoretical writing are emphasized. Note: First course in a two-course required graduate sequence. Prereq: Undergraduate course work in cultural anthropology. **Semester Hours:** 3 to 3

ANTH 6133 - Anthropological Perspectives on Language

An intensive introduction to linguistic anthropology. Following a brief survey of technical linguistics, focus is on: the roles of language in society; multilingualism; language and identity; language and worldview; language, gender, class and power; language as social action; and other topics. Students carry out investigations based on models from their reading, as well as responding to the theoretical approaches of the field. Prereq: Undergraduate course work in cultural anthropology. **Semester Hours:** 3 to 3

ANTH 6307 - Contemporary Perspectives in Archaeology

Explores contemporary theoretical methodological perspectives in archaeology. Structured to proceed from a survey of the history of archaeological thought based on recent retrospectives, to an analysis of works reflecting current perspectives and directions. Topics include: archaeological interpretation, classical versus scientific archaeology, versus culture-history, functionalist and materialist paradigms, ethno-archaeological and text-based studies, neo-evolutionism, interactionist models, Marxist perspectives, processual theory. Prereq: Undergraduate course work in archaeology. **Semester Hours:** 3 to 3

ANTH 6317 - Archaeological Research Design and Analysis

Examines the methods and techniques used in archaeology, including theory-building, hypothesis testing and middle range theory. Core materials emphasize the learning and critique of basic archaeological assumptions and the methods and theories used to scrutinize the collection and interpretation of data. Topics include chronometric applications and paleo-environmental reconstruction. Prereq: ANTH 6307 or equivalent. **Semester Hours:** 3 to 3

ANTH 6503 - Biological Anthropology Core: The Fossil Record

Examines the historical development and modern practice of biological anthropology, including the theoretical and methodological foundations of this field. Emphasis is placed on the evidence for human and non-human primate evolution and the processes that influenced this evolution. Prereq: Graduate standing. **Semester Hours:** 3 to 3

ANTH 6513 - Biological Anthropology Core: Modern Human Variation

Considers the theory and methods used in investigations of biological variation in contemporary human populations. This includes the biological and cultural sources responsible for creating and maintaining contemporary variation as well as their functional consequences. Methods of research design and how to write a grant and scientific articles are considered. Prereq: Graduate standing. **Semester Hours:** 3 to 3

ANTH 6520 - Seminar: Selected Topics in Physical Anthropology

A flexible seminar format for dealing with topics of special interest in physical anthropology on an advanced graduate level. Topics vary from semester to semester. Examples include: anthropology of nutrition, paleoecology, primate evolution, field experience in paleontology, advanced osteology and advanced human ecology. Prereq: Undergraduate work in biological/physical anthropology and graduate standing. **Semester Hours:** 3 to 3

ANTH 6840 - Independent Study: Anth

Semester Hours: 1 to 3

ANTH 6950 - Master's Thesis

Semester Hours: 1 to 6

Architecture Courses (ARCH)

ARCH 1110 - Introduction to Architecture

Introduces students to the essential ways of looking at and thinking about buildings, sites and cities, exposing students to the various perspectives, positions and practices that they will encounter in both an architecture curriculum and in architectural **Semester Hours:** 3 to 3

ARCH 2110 - Design Studio I

Introduces students to the principles of design and composition through studies of architecture's formal, spatial, and geometric systems. Students explore these using a variety of drawing techniques including diagramming and drawings that are exploratory, **Semester Hours:** 3 to 3

ARCH 2230 - Architectural History I

Introduces architecture and urbanism from prehistory to the mid-seventeenth century by exploring the social, cultural, technical, philosophical and aesthetic ideas that shaped buildings and other architectural and urban settings in different parts of the **Semester Hours:** 3 to 3

ARCH 3110 - Design Studio II

Introduces students to the expressive potential of architecture's elements and systems. Students explore techniques for translating and expressing ideas in buildings through the static, dynamic and sequential manipulation of architectural form and space. **Semester Hours:** 6 to 6

ARCH 3120 - Design Studio III

Focuses on the design of buildings in their relationship to physical, natural and cultural contexts. Students explore non-formal concepts and translate them into architectural experiences that integrate program, site and climate. Prereq: ARCH 3110. Res **Semester Hours:** 6 to 6

ARCH 3130 - Construction Practices I

Provides an overview of the materials, systems, assemblies and processes that inform the design and construction of buildings, reviewing the building technologies and developing student understandings of the interrelationship between the interconnected el **Semester Hours:** 3 to 3

ARCH 3230 - Architectural History II

Introduces architecture and urbanism from the mid-seventeenth century to the present, exploring the forces that shaped buildings and other architectural and urban settings in different parts of the world. Prereq: ARCH 2230. Restriction: Must be an und **Semester Hours:** 3 to 3

ARCH 3330 - Building Systems I

Introduces the concepts and methods of environmental control in residential buildings. Discusses the thermal behavior of buildings, climate as a determinant of building design, energy use in buildings, natural and mechanical means of environmental control **Semester Hours:** 3 to 3

ARCH 3340 - Theory of Structures I

Introduction to the analysis and design of structural elements and focuses on the principles of statics and the strength of materials. Topics include stress determination, deflection and the behaviors of tension, compression and shear in various structural members. **Semester Hours:** 3 to 3

ARCH 3601 - History of American Architecture

This course investigates the history of architecture in the United States as a chronological survey of buildings, architects, landscapes, and urban forms and as an exploration of the social, political, economic, technological, and similar issues that influence architecture. **Semester Hours:** 3 to 3

ARCH 3701 - Survival Sketching

The focus of this course will be the sketchbook and the keeping of a sketchbook. Restriction: Must be an undergraduate Architecture student with sophomore standing or higher. **Semester Hours:** 3 to 3

ARCH 3800 - Special Topics - Technical

Special topics elective will include coursework in either Digital Media In Design courses, Design-Build site Construction, or the Science and Art of Engineering Buildings. Additional topics will be developed in conjunction with the required undergraduate topics. **Semester Hours:** 3 to 3

ARCH 3801 - Arch. Digital Media I

Semester Hours: 3 to 3

ARCH 4110 - Design Studio IV

Design Studio IV. Introduces students to analysis and design as complementary processes. Students learn how to form design intentions based on analytical research and close study of the relationship between architecture, precedent and culture, and to communicate design ideas. **Semester Hours:** 6 to 6

ARCH 4120 - Design Studio V

Explores the place and role of architecture as an instrument of critical social engagement and cultural change, the role of history and precedent in the design process, and the role of detail through projects that demonstrate student's proficiency as designers. **Semester Hours:** 6 to 6

ARCH 4240 - Building Systems II

Focuses on the environmental systems in commercial and other nonresidential buildings. Discusses natural and artificial lighting, HVAC systems, acoustics, vertical transportation and fire protection. Prereq: ARCH 3330. **Semester Hours:** 3 to 3

ARCH 4340 - Theory of Structures II

Focuses on the relationship between architectural concepts and the selection of structural systems. Addresses the qualitative and quantitative analysis of reinforced concrete, steel, and wood structural systems and members. Prereq: ARCH 3340. **Semester Hours:** 3 to 3

ARCH 4440 - Construction Practices II

Discusses the principles and processes of building construction and introduces the major systems and assemblies that inform construction practices. Stresses the relationship between architectural concepts and emerging building technologies, teaching students **Semester Hours:** 3 to 3

ARCH 5000 - Math and Physics for Architects

Provides the review of mathematics and physics. This is a prerequisite for the graduate technology courses. Does not count toward the required credits for the MARCH degree.

Semester Hours: 3 to 3 **When Offered:** SUMMER

ARCH 5110 - Design Studio I

This first of four core design studios introduces the basic strategies and techniques of architectural design. Focuses on the languages of design, as well as on traditional and digital methods of visualizing architectural ideas and forms. Prereq: Must have completed the College's woodshop training program. Coreq: ARCH 5111. **Semester Hours:** 6 to 6

ARCH 5111 - Architectural Graphics I

This course explores the development of graphic skills emphasizing drawing as a means to design. It includes investigation of drawing types and methods; diagramming of ideas and systems; informative, exploratory and developmental sketching. Coreq: ARCH 5110. **Semester Hours:** 3 to 3

ARCH 5120 - Design Studio II

The second of the four core design studios focuses on concepts of small-scale building design, sitting and climate. Through a number of design exercises, students learn how these factors help shape buildings. Prereq: ARCH 5110 and ARCH 5111. Coreq: ARCH 5121. **Semester Hours:** 4 to 4

ARCH 5121 - Design Seminar II

Supports fuller discussion of the key themes and concepts in ARCH 5120. Prereq: ARCH 5110 and 5111; Coreq: ARCH 5120. **Semester Hours:** 2 to 2

ARCH 5130 - Design Studio III

The third of the four core studios focuses on concepts of program, architectural meaning and human behavior in buildings. Through a number of design exercises, students learn how these factors help shape buildings. Prereq: ARCH 5120 and ARCH 5121. Coreq: ARCH 5131.

Semester Hours: 4 to 4

ARCH 5131 - Design Seminar III

Supports fuller discussion of the key themes and concepts in ARCH 5130. Prereq: ARCH 5120 and ARCH 5121. Coreq: ARCH 5130. **Semester Hours:** 2 to 2

ARCH 5140 - Design Studio IV

The last of the four core design studios focuses on concepts of building technology, context and environmental sustainability. Through a number of design exercises, students learn how technology helps shape buildings. Prereq: ARCH 5130 and 5131. Coreq: ARCH 5141. **Semester Hours:** 4 to 4

ARCH 5141 - Design Seminar IV

Supports fuller discussion of the key themes and concepts in ARCH 5140. Prereq: ARCH 5130 and 5131; Coreq: ARCH 5140. **Semester Hours:** 2 to 2

ARCH 5210 - Introduction to Architecture

Introduces important ways of looking at architecture and acquaints students with the various perspectives that they will later find in the rest of the curriculum. **Semester Hours:** 3 to 3

ARCH 5220 - History of Architecture I

Introduces world architecture and urbanism from prehistory to the Italian Renaissance. The course helps students understand the various cultural, technological, philosophical, and aesthetic ideas that helped shape buildings through history. Buildings and settlements on all continents and in all of the major world cultures are discussed. Prereq: ARCH 5210. **Semester Hours:** 3 to 3

ARCH 5230 - History of Architecture II

Examines world architecture and urbanism from the Italian Renaissance to the present. Helps students understand the various cultural, technological, philosophical and aesthetic ideas that helped shape buildings through history. Buildings and settlements on all continents and in all of the major world cultures are discussed. Prereq: ARCH 5220. **Semester Hours:** 3 to 3

ARCH 5240 - Human Factors in Design

Focuses on the ethical, social, cultural and psychological principles, processes which people bring to the perception and design of the built environment. Its major topics include: ethical values; cultural patterns and values; privacy and community; social, cultural and personal ritual; the symbolic content of form and environment; and programming and post-occupancy evaluation. **Semester Hours:** 3 to 3

ARCH 5310 - Introduction to Building Technology

Provides an overview of the structure, systems, assemblies and processes that make a building. Provides a broad view of building technology and an understanding of the interrelationship of all the parts, upon which subsequent technology courses are based. **Semester Hours:** 3 to 3

ARCH 5320 - Building Construction and Methods

Discusses the principles and processes of building construction and introduces the major constructional systems. Stresses the relationship between architectural concepts and building technology and helps students understand how to choose building systems and materials. Prereq: ARCH 5310. **Semester Hours:** 3 to 3

ARCH 5330 - Environmental Control Systems I

The first course in the environmental control systems sequence introducing the concepts and methods of environmental control in residential buildings. Discusses the thermal behavior of buildings, climate as a determinant of building design, energy use in buildings, natural and mechanical means of environmental control, plumbing, electrical, communication systems, water supply and sanitation systems. Prereq: ARCH 5320. **Semester Hours:** 3 to 3

ARCH 5340 - Environmental Control Systems II

The second course in the environmental control systems sequence focusing on the environmental systems in commercial and other non-residential buildings. Discusses natural and artificial lighting, HVAC systems, acoustics, vertical transportation and fire protection. Prereq: ARCH 5330. **Semester Hours:** 3 to 3

ARCH 5350 - Structures I

The first course in the structures sequence introduces the analysis and design of structural elements and focuses on the principles of statics and the strength of materials. Topics include stress determination, deflection and the behaviors of tension, compression and shear in various structural elements. Coreq: ARCH 5340. **Semester Hours:** 3 to 3

ARCH 5360 - Structures II

Focuses on the relationship between architectural concepts and the selection of structural systems. Addresses the qualitative and quantitative analysis of reinforced concrete, steel and wood structural systems and members. Prereq: ARCH 5350. **Semester Hours:** 3 to 3

ARCH 5410 - Professional Practice

Introduces the essential elements of professional practice through topics such as internship, licensing, services, modes of practice, fees, marketing, documents, specification and production procedures. Examines traditional and emerging forms of practice. **Semester Hours:** 3 to 3

ARCH 6150 - Comprehensive Design Studio

A required studio focusing on an architectural project from schematic design through detailed development including structural, environmental systems, life safety, wall sections and building assemblies. A comprehensive program will inform the architectural project. Prereq: ARCH 5140 and ARCH 5141. Coreq: ARCH 6151. **Semester Hours:** 4 to 4

ARCH 6151 - Comprehensive Design Seminar

Supports fuller discussion of the key themes and concepts in ARCH 6150. Prereq: ARCH 5140 and ARCH 5141. Coreq: ARCH 6150. **Semester Hours:** 2 to 2

ARCH 6170 - Advanced Design Studio

Students enter the advanced design studio after successfully completing the four core design studios and comprehensive studio (ARCH 6150). Students must take two advanced studios (unless they wish to undertake a thesis; see ARCH 6950). Topics vary according to faculty interests. Prereq: ARCH 6150 and ARCH 6151. Coreq: ARCH 6171. **Semester Hours:** 4 to 4

ARCH 6171 - Advanced Design Seminar

Supports fuller discussion of key themes and concepts in ARCH 6170. Students must take two advanced design seminars (unless they wish to undertake a thesis; see ARCH 6950). Prereq: ARCH 6150, ARCH 6151. Coreq: ARCH 6170. **Semester Hours:** 2 to 2

ARCH 6190 - Special Topics in Design Studies

Various topics in design, according to current faculty and student interests. Prereq: Completion of ARCH 5110. **Semester Hours:** 3 to 3

ARCH 6210 - History of American Architecture

Examines the history of American architecture from prehistoric times to the present, mainly within the geographical borders of the present-day United States. Helps students understand the various cultural, technological, philosophical and aesthetic ideas that helped shape American buildings. **Semester Hours:** 3 to 3

ARCH 6212 - History of Modern Architecture

Examines the various theories, accomplishments and ideals of modern architecture in the 20th century. Issues include the relationship between theory and practice, architecture and ideology, technology, abstraction and representation, functionalism and formalism, utopianism and social responsibility. **Semester Hours:** 3 to 3

ARCH 6220 - History of Architectural Theory

Investigates the history of architectural theories in the West from antiquity to the present. Explores the various ideas that have been proposed to explain or to direct architectural design and examines the relationship between the theories and the buildings themselves. **Semester Hours:** 3 to 3

ARCH 6221 - Post-Structuralist Architecture

Examines the ways in which architecture has responded to the philosophical changes introduced during the 1960's French post-structuralism. Evaluates how the new metaphysical outlooks have affected architectural theory and design methods. **Semester Hours:** 3 to 3

ARCH 6230 - Preservation Theory and Practice

The practice of historic preservation has evolved in a specific policy context. This introductory course introduces basic American institutions and laws associated with preservation as well as standards, definitions, and practices associated with these. Cross-listed with HIPR 6010. **Semester Hours:** 3 to 3

ARCH 6231 - Regionalisms & the Vernacular

This class explores the history of the built environment from the perspective of evolutionary change; peoples attempting to meet utilitarian needs, respond to environmental forces, societal expectations, and aesthetic aspirations through design. The course looks closely at vernacular structures in a global context. Cross-listed with HIPR 6110. **Semester Hours:** 3 to 3

ARCH 6240 - History Of The City

Introduces students to the history of global cities through selected typologies. Explores similarities and differences among cities considered against the larger cultural, political and socio-economic envelope of which they are part. Provides awareness of origins, growth and evolution of urban form. Cross-listed with URBN 6640. **Semester Hours:** 3 to 3

ARCH 6241 - Studies in Tectonics

This research seminar focuses on tectonics - the logic of structure & material combinations (wood, metal, stone, masonry etc.). Through case studies, the relationship between function, aesthetics, detail, and tectonics are explored in relation to contemporary architectural concerns. Prereq: HIST I & II. **Semester Hours:** 3 to 3

ARCH 6249 - Sketching As Seeing

Sketching promotes seeing, and seeing promotes thinking. This course is designed to help you think & see by the regular practice of sketching & the discipline of keeping a sketchbook. **Semester Hours:** 3 to 3

ARCH 6250 - Drawing from Barragan

Course explores the work of a seminal figure - Luis Barragan - as a means with which to consider the potentials for a new synthesis in architecture. Learning to draw spaces in colored pencil will give insight regarding his design principles. Cross-listed with ARCH 6390. **Semester Hours:** 3 to 3

ARCH 6251 - Neuro Science and Design

This seminar will explore knowledge that informs how humans perceive and respond to the environment. Particular emphasis will be placed on how cognitive science and interdisciplinary scholarship can provide an evidence base to potential applications in environmental design. **Semester Hours:** 3 to 3

ARCH 6252 - Land/ARCH

This theory seminar examines the contemporary discourse surrounding landscape, architecture, and the dialogue between the two. The course is structured around a series of panel discussions and paper presentations, based on positions developed by seminar participants throughout the semester. Cross-listed with LDAR 6686. **Semester Hours:** 3 to 3

ARCH 6253 - Nature of Nature

Examines a variety of meanings for "nature." Different perspectives will be examined such as nature and place, nature and convention, nature and experience, nature and gender, nature and food, nature and activism, and nature and technology. **Semester Hours:** 3 to 3

ARCH 6254 - Architecture, In Theory

Explores theories and texts that have influenced the analysis and the production of architectural form. The focus is on the expressive potential of architectural forms and the modalities of the realization of this potential. Prereq: Course is offered to doctoral students but masters students may enroll with instructor approval. Cross-listed with DSPL 7016. **Semester Hours:** 3 to 3

ARCH 6255 - Art Of The Museum

Art museums, as public institutions, were established in early 19th century Europe. Today, the art museum has evolved into an essential symbol of cultural achievement. This course explores the complexity and value of the art museum for contemporary culture. **Semester Hours:** 3 to 3

ARCH 6275 - History Native Amer Arch

Introduces Native American architecture from the 12th century to the present. The course helps students understand the various cultural, technological, philosophical and aesthetic ideas that helped shape these buildings throughout history. **Semester Hours:** 3 to 3

ARCH 6290 - Special Topics in Cultural Studies

Various topics in cultural studies, according to current faculty and student interests. Prereq: ARCH 5210, ARCH 5220 and ARCH 5230. **Semester Hours:** 3 to 3

ARCH 6310 - Greenbuilding Tech

This seminar will advance the student's knowledge of environmental building and construction methods through studies in material resources, innovative green systems, alternate green technology, energy efficiency, and affordability in "green architectural design." Prereq: One course in ECS Systems. **Semester Hours:** 3 to 3

ARCH 6313 - LEED Certification, Greenbuilding Seminar

This RIGOROUS course will use the LEED Certification process to provide a framework for assessing building performance and meeting sustainability goals, following the 1st step in a two stage Professional Accreditation process, focusing on LEED GA, Green Associate Accreditation. **Semester Hours:** 3 to 3

ARCH 6314 - LEED AP Advanced Greenbuilding Seminar

This advanced LEED Certification and Accreditation course builds on the first LEED GA course, providing a framework for assessing green building performance and sustainability goals, exploring advanced green building concepts and preparing the student for the LEED AP BD+C exam. **Semester Hours:** 3 to 3

ARCH 6351 - Building Conservation

This course emphasizes the relationship between knowledge acquisition, professional judgement, and design modification. Topics include: 1) Historic Building Types & Methods, 2) Field and Lab Methods of Building Assessment, and 3) Management of Building Rehabilitation. The course takes an integrative approach to the scientific, aesthetic, managerial and legal dimensions of preservation. Prereq: ARCH 5310 and ARCH 5320. **Semester Hours:** 3 to 3

ARCH 6352 - Documentation, Analysis, Representation

This methods course focuses on skills development in in-situ documentation of the historic environment. The course includes modules on: a) historic records, b) archaeological evidence, c) building and site measurement, d) photographic & Photometric methods, e) geo-spatial data, f)

graphic representation, and g) reporting formats. Cross-listed with HIPR 6310. **Semester Hours:** 3 to 3

ARCH 6353 - Daylighting Design

Daylighting is the use of light from the sky to illuminate building interiors. The objective of this course is to introduce students to the fundamentals of daylighting design including how it is perceived and how it impacts building energy flows. **Semester Hours:** 3 to 3

ARCH 6354 - The Art of Proportion

This course covers the use of proportional systems in the Classical tradition. Students complete a series of graphic exercises culminating in the construction of a Beaux-Art style ink-wash of a classical column. Cross-listed with ARCH 6290 and HIPR 6090. **Semester Hours:** 3 to 3

ARCH 6370 - Introduction To Design Build

Introduction to Design Build project delivery methods important to architects. Lecture, research on the industry and an individual student project are the methods used to introduce ethical questions, role of the architect, owner, consultant and subcontractors. Work leads to studio project or case study. **Semester Hours:** 3 to 3

ARCH 6373 - Construction in Design Build

Using a single project, students fully explore the design phase, estimating, scheduling and project management skills in traditional construction. Course is concurrent with an advanced studio and builds a project on a site. Prereq: ARCH 6370. **Semester Hours:** 3 to 3

ARCH 6390 - Special Topics in Technology

Various topics in technology, according to current faculty and student interests. Prereq: ARCH 5310 and ARCH 5320. **Semester Hours:** 3 to 3

ARCH 6412 - Construction Documents

Introduces the concepts and techniques of construction documents. **Semester Hours:** 3 to 3

ARCH 6450 - Pre-Design

Course lectures, readings, and case studies cover pre-design methodologies, research, documentation, facilitation and consensus building. **Semester Hours:** 3 to 3

ARCH 6451 - Digital Applications

This course introduces first year design students to the Graphic Design Concepts and Digital Applications necessary to create both Printed and Interactive Presentations of their work. Students learn computer skills including: Photoshop, InDesign and Flash. Prereq: ARCH 5110. **Semester Hours:** 3 to 3

ARCH 6452 - Digital Portfolio Design

This course introduces students to the Graphic Design Concepts and the Digital Applications used to create both Printed and Web-based Portfolios. Students must have completed ARCH 5110 and have a working knowledge of Photoshop. Prereq: ARCH 5110. **Semester Hours:** 3 to 3

ARCH 6453 - Introduction To Digital Design & Fabrication

An introductory class to Computer Aided Design (CAD) and Computer aided manufacturing (CAM). Students explore how these technologies apply to the field of architecture with a focus is on parametric/algorithmic design approaches and mass customization manufacturing techniques. **Semester Hours:** 3 to 3

ARCH 6454 - Rhino Modeling and Representation

An introductory class to Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM). Students explore how these technologies apply to the field of architecture with a focus on surface modeling and parametric/algorithmic design approaches and mass customization and representation as well as manufacturing techniques. **Semester Hours:** 3 to 3

ARCH 6460 - Architecture Photography

Introduces the key concepts and techniques of photography in general and architectural photography in particular. Students learn basic principles of exposure, focal length, composition and darkroom procedures and then undertake a number of photographic exercises. **Semester Hours:** 3 to 3

ARCH 6461 - Architectural Precedents

Explores a number of traditional answers to recurring design issues, such as how to approach and enter a building or how to design a facade. In a seminar setting, students examine traditional ideas for their underlying principles and design new architectural compositions based on those principles. Prereq: Completion of ARCH 5110. **Semester Hours:** 3 to 3

ARCH 6462 - Furniture Design

Students learn how to design and build furniture in the College's woodshop. Topics include ergonomics, properties of materials, principles and techniques of joinery and techniques of hand and machine tools. Prereq: must have completed the college's woodshop training program. **Semester Hours:** 3 to 3

ARCH 6463 - Beginning Revit

Introduces beginning design students to basic building components and Revit techniques. **Semester Hours:** 3 to 3

ARCH 6464 - Intermediate Revit

Revit techniques for experienced CAD users who need to share files and collaborate in design projects. Cross-listed with ARCH 6390. **Semester Hours:** 3 to 3

ARCH 6465 - Advanced Revit

Emphasizes family customization of Revit for architectural practice. Prereq: ARCH 6390. **Semester Hours:** 3 to 3

ARCH 6470 - ACE Mentoring

Graduate students work with professional architects, designers, and engineers mentoring students in selected local high schools to learn problem solving, graphics and model making to

produce a design project. Student mentors develop lesson plans, outcomes and keep a weekly journal. **Semester Hours:** 3 to 3

ARCH 6471 - Managing Quality & Risks

A lecture and seminar on approaches to risk management including contracts, insurance, financial analysis, dispute resolution and client relationships. Utilizing case study approach, quality assurance will be defined and studied in the design and building phase of workings.

Prereq: ARCH 6370. **Semester Hours:** 3 to 3

ARCH 6472 - Architecture in a Single Source Project Delivery

Directed to the practice of architecture with design build and other single source delivery systems. This course examines requirements of codes, zoning, building systems and legal questions for the architect. Prereq: ARCH 6370. **Semester Hours:** 3 to 3

ARCH 6473 - Research Tools & Methods

Introduces the thesis in architecture and establishes the scholarly basis for the research and construction of a Master's Thesis project. This course will provide the student with the research practices and methodologies to develop the scholarship and products required to produce a Thesis Project Proposal. Completion of this course is a prerequisite for the student to submit the Thesis Proposal for departmental approval to continue with the remaining 9 credits of thesis work. Cross-listed with LDAR 6949. **Semester Hours:** 3 to 3

ARCH 6490 - Special Topics in Professional Studies

Various topics in professional studies according to current faculty and student interests.

Semester Hours: 3 to 3

ARCH 6520 - Architecture in Other Cultures

Various studies of architecture and urbanism in foreign countries. **Semester Hours:** 1 to 9

ARCH 6624 - The Built Environment in Other Cultures I: Research Design

The intent is to broaden students' perspectives by asking them to examine design within another culture. Each student prepares a proposal of study including a statement of the problem to be addressed, the type of field research to be undertaken and the nature of the report to be produced. Cross-listed with LDAR 6624. **Semester Hours:** 3 to 3

ARCH 6730 - International Studies Preparation

The course will prepare students to go to China, for 10-day International Summer School, 5-week China Summer Urban Design Joint Studio, 9-month Gensler Internship, and 1-year LA Dual Degree program. Topics include historic, geographic and cultural issues, and language lessons. Cross-listed with URBN 6730, LDAR 6730, and URPL 6730. **Semester Hours:** 1 to 3

ARCH 6775 - Bluff General Elective

Provides students the opportunity to focus their attention on one of three areas: technical studies, professional studies, or cultural studies. Students will complete coursework as it relates to Design Build Bluff. Counts as a general elective. **Semester Hours:** 3 to 3

ARCH 6840 - Independent Study

Studies initiated by students or faculty and sponsored by a faculty member to investigate a special topic or problem related to architecture. Prereq: Permission of instructor. **Semester Hours:** 1 to 3

ARCH 6910 - Teaching Assistantship

Work with a faculty member in a course to help with class preparation and delivery. This is intended for students who may be considering a career in teaching architecture. Prereq: Permission of instructor. **Semester Hours:** 3 to 3

ARCH 6930 - Architecture Internship

Designed to provide professional practice experience. The internship is composed of eight hours per week working in a practicing professional's office during the regular semester. Students must complete the second-year level before taking this course. **Semester Hours:** 3 to 3

ARCH 6931 - Architecture Internship

Designed to provide professional practice experience. The internship is composed of eight hours per week working in a practicing professional's office during the regular semester. Students must complete the second-year level before taking this course. **Semester Hours:** 3 to 3

ARCH 6950 - Thesis Preparation

In place of the final advanced design studio, students may choose to develop a specialized thesis in some topic related to architecture. The thesis will normally take three semesters, starting with the three-credit hour ARCH 6473, Research Tools & Methods in the spring semester, this course in the fall semester and finishing with a six-credit thesis class in the third semester. A thesis may culminate in a design or in a written report. A thesis is expected to advance the field in some way by offering new insights into aspects of design, technology, history or professional principles. Prereq: ARCH 6490 and completion of at least one advanced design studio (ARCH 6170 or ARCH 6171). **Semester Hours:** 3 to 3

ARCH 6951 - Architecture Thesis

Development of a master's thesis (see ARCH 6950 above). Prereq: completion of two advanced design studios ARCH 6150 and ARCH 6950. **Semester Hours:** 6 to 6

ARCH 7840 - Independent Study

Semester Hours: 1 to 3

Interdisciplinary Arts Courses (ARTS)

ARTS 1000 - Arts In Our Time

Multidisciplinary course designed to introduce students to the ways in which arts work and how the arts shape our perception of the world around us. Each student selects three four-week modules designed to examine each of the disciplines of fine arts, music and theatre, in the context of the creative process, audience perception and historical perspective. Every five weeks, students from each of the modules join forces in a week of "Inter-arts" sessions -- lectures and discussions about the relationship of the arts to each other and to our contemporary culture. Topics which are addressed in the modules include such things as American musical theatre, perception of jazz, public sculpture, light as art, sonic explorations, photography, history of production design, women in American music and censorship. **Semester Hours:** 3 to 3

ARTS 1111 - Freshman Seminar

The course explores the nature of creative inspiration, its potential and implementation. Through individual and collaborative projects, students investigate the interdisciplinary composition and development of the literary, visual and performing arts and their aesthetic, social and political impact. **Semester Hours:** 3 to 3

ARTS 1150 - Topics in Cross-Disciplinary Arts I

Designed to explore the ways in which the arts are a part of daily life. Research and observation of the variety of ways in which the arts are utilized. Prepares students to participate in special projects. Specific topics and projects change each semester. **Semester Hours:** 1 to 3

ARTS 1400 - The Horror Film

This course is an analysis of the horror film genre and its significance as a reflection on society. It will look at both the history and development of this genre and the impact these films have had. **Semester Hours:** 3 to 3

ARTS 1450 - Visual Culture: Ways of Seeing

A core course for majors and non-majors Visual Culture: Ways of Seeing explores how the meaning of imagery is encoded in cultural settings and transforms globally through changing technology and is integrated into daily life. **Semester Hours:** 3 to 3

ARTS 2150 - Topics in Cross-Disciplinary Arts II

Provides opportunities for students to apply artists' methods and media in a non-presentation setting. Experiential research is centered around a specific topic each semester, but enable students to discover a broader understanding of the arts. **Semester Hours:** 1 to 3

ARTS 3150 - Topics in Cross-Disciplinary Arts III

Focuses on the ways in which the arts are engaged in communities as expressions of identity as well as agents of change. Historical research and applied projects provide a foundation for participation in designated team projects. **Semester Hours:** 1 to 3

ARTS 3400 - World Cinema

This course will examine representative examples of films from around the world to understand the current interests and concerns of world cinema, as well as to learn what concerns various countries around the world, and how those concerns are expressed. **Semester Hours:** 3 to 3

ARTS 3939 - Internship

Students build professional skills and increase their understanding of creative industries through experiential learning and course work designed to expand internship experiences into powerful learning. Assigned readings, group discussions, weekly summaries, and final paper/presentation support and reflect internship activities and build interpersonal, organizational, and industry specific skills while increasing knowledge of business practices and professionalism. **Semester Hours:** 1 to 3

ARTS 4150 - Topics in Cross-Disciplinary Arts IV

Investigates the historical and critical perspectives of the arts in a variety of contexts. Specific topics provide a focus for students to discover the ways in which the arts inform each other and are shaped by the events of the world. **Semester Hours:** 1 to 3

ARTS 5000 - Topics

Semester Hours: 3 to 3

ARTS 5150 - Topics In Cross-Disciplinary Arts

Investigates the historical and critical perspectives of the arts in a variety of contexts. Specific topics provide a focus for students to discover the ways in which the arts inform each other and are shaped by the events of the world. **Semester Hours:** 1 to 3

Bioengineering Courses (BIOE)

BIOE 1010 - Bioengineering Design and Prototyping I

BIOE 1010 introduces students to bioengineering, and provides an introduction to possible careers and research topics in Bioengineering. Students also learn human anatomy by understanding how to incorporate visual human datasets into computer prototyping **Semester Hours:** 2 to 2 **When Offered:** *FALL*

BIOE 1020 - Bioengineering Design and Prototyping II

BIOE 1020 extends work from BIOE 1010 by introducing students to practical skills around computer-aided design (CAD), modeling and prototyping with focus on project-oriented work aimed at design, prototyping and metrology of specific medical devices. Pre **Semester Hours:** 2 to 2 **When Offered:** *SPRING*

BIOE 4063 - 3D Modeling for Bioengineers

This course instills in the 3D modeling skills specific to the biomedical industry. Topics include computer aided design (CAD), medical imaging, image processing, patient specific image to three-dimensional (3D) model reconstruction, non-uniform rational b-spline (NURBS) surfaces, finite element and computational fluid dynamics (FEA/CFD) analyses and physical modeling using rapid prototyping. Restrictions: Matriculated CEAS students. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

BIOE 5010 - Life Sciences I

This course provides an introduction to human anatomy and physiology and clinical medicine, with focus on using engineering methods to analyze structure and function and multiple dimensional scales. Topical areas cover molecular biology, neuroscience and orthopedics. Prereq: Graduate standing in Bioengineering. **Semester Hours:** 3 to 3

BIOE 5011 - Life Sciences II

This course continues from LifeSciences I to cover the additional topical areas of Cardiovascular, Renal Medicine and Urological Sciences. Prereq: Graduate standing in Bioengineering; Grade of B or better in LifeSciences for Engineers I (BIOE 5010). **Semester Hours:** 3 to 3

BIOE 5020 - Quantitative Methods I

This course provides an introduction to graduate level mathematics and numerical analysis as used in bioengineering. After a review of undergraduate concepts, it covers discrete systems, transforms and numerical methods as used in imaging, physiological modeling, and patient-specific computational simulation. Prereq: Graduate standing in Bioengineering. **Semester Hours:** 3 to 3

BIOE 5021 - Quantitative Methods II

This course continues the introduction to graduate level mathematics and numerical analysis provided in BIOE 5020 (Quantitative Methods for Bioengineers I). This course will focus on Finite Element methods, Experimental Methods for Biomedical Diagnostics, Signal Processing Techniques, Data Analysis, Uncertainty and Biostatistics. Prereq: Graduate standing in

Bioengineering. Grade of B or better in BIOE 5020 (Quantitative Methods for Bioengineers I), or permission of instructor. **Semester Hours:** 3 to 3

BIOE 5030 - Technology I

This course provides an introduction to imaging technologies used by biomedical researchers and clinicians. Focus will be on basic physics, instrumentation and clinical applications. Prereq: Graduate standing in Bioengineering. **Semester Hours:** 3 to 3

BIOE 5031 - Technology II

This course continues the introduction to imaging from BIOE 5030 (Technology for Bioengineers I) but with a much stronger emphasis on quantitative methods of medical image analysis and description of medical imaging physics. Prereq: Graduate standing in Bioengineering. Grade of B or better in BIOE 5030, or consent of instructor. **Semester Hours:** 3 to 3

BIOE 5040 - Research Methods and Clinical Experiences I

This course provides an introduction to research methods and clinical experiences for Bioengineers in order to prepare students for basic research, clinical applications and commercialization of medical technologies. Prerequisite: Graduate standing in Bioengineering (MS/PhD). **Semester Hours:** 2 to 2 **When Offered:** FALL

BIOE 5041 - Research Methods and Clinical Experiences II

This course provides an introduction to research methods and clinical experiences for Bioengineers in order to prepare students for basic research, clinical applications, and commercialization of medical technologies. Prerequisites: Graduate standing in Bioengineering (MS/PHD); BIOE 5040 **Semester Hours:** 1 to 1 **When Offered:** FALL

BIOE 5063 - 3D Modeling for Bioengineers

Course instills 3D modeling skills specific to biomedical industry. Topics include computer aided design, medical imaging, image processing, patient specific image to three-dimensional model reconstruction, non-uniform rational b-spline surfaces, finite element, computational fluid dynamics analyses, physical modeling using rapid prototyping. Restrictions: Matriculated CEAS students. **Semester Hours:** 3 to 3 **When Offered:** FALL SPR

BIOE 5064 - Advanced MatLab For Bioengineers And Life Scientists

This course covers MatLab programming for bioengineers and life scientists. Topics include MatLab syntax and optimization as well as techniques for working with scalars, time-series, images and multi-dimension datasets. Surface/Curve fitting, modeling, **Semester Hours:** 3 to 3

BIOE 5073 - Neural Interfaces and Bionic Limbs

This course will explore advanced topics in neural interfaces (Brain machine interfaces, peripheral nerve interfaces etc), the issues involved in the design of mechatronic limb systems and the decoding algorithms used to map the neural interface to the mechatronic limb. Restrictions: Matriculated CEAS students. **Semester Hours:** 3 to 3 **When Offered:** SPRING

BIOE 5420 - Special Topics in Bioengineering

Special topics of particular interest to graduate students in Bioengineering. Prereq: Graduate standing within the Department of Bioengineering or permission of instructor. **Semester Hours:** 3 to 3

BIOE 5840 - Independent Study in Bioengineering

Graduate level independent study in Bioengineering with a faculty mentor. Prereq: Graduate standing within the Department of Bioengineering or permission of instructor. **Semester Hours:** 1 to 6

BIOE 6950 - Masters Thesis

Research for Master Thesis under supervision of faculty thesis advisor. Prerequisites: Consent of thesis advisor. Restrictions: Satisfactory progress toward MS-Bioengineering degree. **Semester Hours:** 1 to 6 **When Offered:** *FASPRSUM*

BIOE 6960 - Master's Project

Training for Master's Project under the supervision of faculty project advisor. Prereq: Department Consent. **Semester Hours:** 1 to 6

BIOE 8990 - Doctoral Dissertation

Research for doctoral dissertation under supervision of faculty advisor. Prerequisites: Consent of dissertation advisor. Restrictions: Satisfactory progress toward PhD-Bioengineering Degree. **Semester Hours:** 1 to 10 **When Offered:** *FASPRSUM*

Biology Courses (BIOL)

BIOL 1111 - Freshman Seminar

Semester Hours: 1 to 3

BIOL 1136 - Human Biology

Topics include: basic human body chemistry, healthy internal body balance, new disease treatments, human inheritance and human beings as part of Earth's living systems. Note: For students who are not majoring in biology. **Semester Hours:** 3 to 3

BIOL 1550 - Basic Biology: Ecology and the Diversity of Life

Introduces important biological concepts, including: the process of science, biological diversity, evolution, basic ecological principles and environmental issues. Lectures emphasize current issues. Note: For students who are not majoring in biology. Biology and health career majors should not take this course. **Semester Hours:** 4 to 4

BIOL 1560 - Basic Biology: From Cells to Organisms

Introduces students to cell structure and function, survey of representative human systems, genetics and applications of biotechnology. Immune systems featured with an emphasis on Aids, cancer and other human diseases prevalent in today's world. Note: For students who are not majoring in biology. Biology and health career majors should not take this course. **Semester Hours:** 4 to 4

BIOL 2051 - General Biology I

Introduces four major areas of study: (1) the chemistry of biological systems; (2) the structure and function of the cell; (3) cellular energy transformations (photosynthesis and respiration); and (4) genetics (mitosis, meiosis, patterns of inheritance, molecular genetics). Note: Biology and health science (pre-med, pre-vet, pre-physical therapy, etc.) majors must also take the accompanying laboratory - BIOL 2071. Prereq: CHEM 1000 or high school chemistry required. **Semester Hours:** 3 to 3

BIOL 2061 - General Biology II

This course is a continuation of BIOL 2051. Introduces four major areas of study: (1) evolution, (2) animal structure and function, (3) plant structure and function and (4) ecology. Note: Biology and health science (pre-med, pre-vet, nursing, etc.) majors must also take the accompanying laboratory - BIOL 2081. Prereq: BIOL 2051 or equivalent with a grade of "C-" or higher. **Semester Hours:** 3 to 3

BIOL 2071 - General Biology Laboratory I

Introduces the basic scientific approach and report preparation through exercises and experiments in cell biology, basic biochemical techniques, genetics, molecular genetics and applications of biotechnology. Note: Exercises corresponding to topics in BIOL 2051. Coreq: BIOL 2051. **Semester Hours:** 1 to 1

BIOL 2081 - General Biology Laboratory II

Study of evolution, plant and animal anatomy, developmental biology; includes two off-campus ecology field trips. Note: Exercises corresponding to topics in BIOL 2061. Prereq: BIOL 2071 or equivalent with a grade of "C-" or higher; Coreq: BIOL 2061. **Semester Hours:** 1 to 1

BIOL 2091 - General Biology Lab for Secondary Teacher Licensure

One-semester general biology laboratory for those students who are pursuing secondary science teacher licensure. Introduces the scientific method through select exercises and experiments in cell biology, basic biochemical techniques, genetics, molecular genetics, anatomy, physiology, and development, ecology, and evolution. Note: Exercises corresponding to select topics in BIOL 2051 and BIOL 2061. Will not fulfill biology major requirements. Students completing BIOL 2071 and BIOL 2081 may not receive credit for BIOL 2091, nor may students completing BIOL 2091 receive credit for BIOL 2071 and BIOL 2081. Prereq: BIOL 2051 or equivalent with a grade of "C-" or higher. Coreq: BIOL 2061. **Semester Hours:** 1 to 1

BIOL 2750 - Introduction to Molecular Research Techniques

Designed to give background knowledge and hands-on experience for a person wanting to work in a molecular-research laboratory. Introduction to basic molecular techniques including micropipetting, making media, DNA and RNA isolation, restriction digest, RT-PCR, and gel electrophoresis. **Semester Hours:** 2 to 2

BIOL 2840 - Independent Study

Note: registration by special processing form only. Prereq: One semester of general biology with a grade of "C-" or higher and permission of instructor. **Semester Hours:** 1 to 3

BIOL 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 1 to 3

BIOL 3104 - Behavioral Genetics

Interdisciplinary course on relationships between behavior and heredity, with emphasis on human behavioral genetics. Prereq: General biology or general psychology. Cross-listed with PSYC 3104. **Semester Hours:** 3 to 3

BIOL 3124 - Introduction to Molecular Biology

Provides an understanding of the structure and function of genetic material, DNA replication and recombination, and regulation of gene expression and protein synthesis. Emphasizes eukaryotic systems, while providing an overview of prokaryotic systems. Prereq: One year of general biology with a grade of "C-" or higher and one year of general chemistry. **Semester Hours:** 3 to 3

BIOL 3134 - Advanced Topics

Periodic examination of current topics in the field of biology. (See Schedule Planner for current topics). **Semester Hours:** 1 to 8

BIOL 3225 - Human Physiology

The basic orientation of the course is toward understanding the functioning of the body as a set of homeostatic mechanisms. Particular emphasis is placed on membrane potentials, muscle, circulation, respiration, digestion, the kidney, the control of metabolism and acid-based balance.

Prereq: One year of general biology, general cell biology and one year of chemistry with grades of 'C-' or higher. **Semester Hours:** 4 to 4

BIOL 3244 - Human Anatomy

Introduces the structural aspects of the human body. Anatomical models, microscope slides and dissections, including human cadavers are used in the lab. Prereq: one year of general biology with a grade of "C-" or higher. **Semester Hours:** 5 to 5

BIOL 3330 - Plant Diversity

Surveys all major plant groups using evolutionary and ecological principles to interpret patterns of diversity in form and function. Topics include reproduction and life cycles, adaptations and ecological interactions, paleobotany and biogeography, classification and taxonomy and evolution. Prereq: One year of general biology with a grade of "C-" or higher. **Semester Hours:** 3 to 3

BIOL 3411 - Principles of Ecology

A lecture course that examines the interrelationships between organisms and their environments. Subject matter includes organism, population and ecosystem levels of study and application to current environmental issues. The emphasis is on the underlying p **Semester Hours:** 3 to 3

BIOL 3412 - Fundamentals of Applied Ecology

Ecology is the science of interrelationships between organisms, including humans and their environment. This lecture course examines applications of ecological principles to human needs and environmental protection. Covers the ecology of humans and managed systems. Note: Satisfies core ecology requirement for biology major. May not be used as upper division biology elective. No co-credit with BIOL 3411. Prereq: One year of general biology with a grade of "C-" or higher. **Semester Hours:** 3 to 3

BIOL 3413 - Ecology Laboratory

Provides hands-on experiences in ecology and appreciation for using research tools to study ecological systems. Students will learn a wide range of techniques and concepts related to population, community, ecosystem, urban, and physiological ecology. Prereq: Introductory Ecology with a grade of "C-" or higher; concurrent registration in ecology accepted. **Semester Hours:** 2 to 2

BIOL 3520 - Invertebrate Zoology

Most species on earth are invertebrate animals that, by definition, lack backbones. This course examines the biology, taxonomy, anatomy, ecology and evolution of these important creatures, which occupy a diversity of terrestrial, freshwater and marine habitats. Prereq: One year of general biology with a grade of "C-" or higher. **Semester Hours:** 3 to 3

BIOL 3521 - Vertebrate Biology

The subphylum vertebrata consists of fish, amphibians, reptiles, birds and mammals--some of the most fascinating and most threatened species on earth. This course covers the geological record, evolution, taxonomy, anatomy, physiology, ecology and conservation of these organisms. Prereq: One year of general biology with a grade of "C-" or higher. **Semester Hours:** 3 to 3

BIOL 3611 - General Cell Biology

Covers the structure and function of the cell including bioenergetics, membranes, secretion, respiration and the cell cycle. Prereq: One year of general biology with a grade of "C-" or higher and one year of general chemistry. **Semester Hours:** 3 to 3

BIOL 3612 - Cell Biology Laboratory

Laboratory course covering topics in cell and molecular biology, such as protein folding, membrane potential, organelle function, cell signaling and fertilization; as well as associated methods, including microscopy, cell culture and PCR. Basic skills are emphasized in recitation and laboratory. Prereq: General cell biology with a grade of "C-" or higher or permission of instructor. **Semester Hours:** 3 to 3

BIOL 3621 - Introduction to Immunology

Provides an introduction to the basic concepts of immunology, including development of the immune system, innate immunity, aspects of the adaptive immune system, and the role of the immune system in disease, as well as allergies and autoimmunity. Prereq: One year of general biology with a grade of "C-" or higher. **Semester Hours:** 3 to 3

BIOL 3654 - General Microbiology

Covers all aspects of the biology of microorganisms: their cellular structures and function, growth and metabolism, general and molecular genetics, diversity and interactions with other organisms and the environment (ecology). The objective is to provide **Semester Hours:** 5 to 5

BIOL 3763 - Biostatistics

Surveys statistical approaches to biology. Emphasizes quantifying problems, study design, data exploration and statistical inference methods. Focuses on methods and examples for general biology, ecology, and health sciences. Includes exposure to statistical software. Prereq: One year of general biology with a "C-" (1.7) or higher, and equivalent of college-level algebra with "B" (3.0) or higher, or introductory statistics with a "B" (3.0) or higher, or permission of instructor. **Semester Hours:** 3 to 3

BIOL 3832 - General Genetics

Introduces molecular, classical, developmental and population genetics. Prereq: One year of general biology with a grade of "C-" or higher. **Semester Hours:** 4 to 4

BIOL 3840 - Independent Study

Note: Registration by special processing form only. Prereq: One year of general biology with a grade of "C-" or higher and permission of instructor; registration by special processing form only. **Semester Hours:** 1 to 3

BIOL 3939 - Internship

Designed experience involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

BIOL 4024 - Introduction to Biotechnology

Introduces aspects of biotechnology within a historical context, including medical, forensic, agricultural and microbial biotechnology. Addresses principles behind state-of-the-field techniques in recombinant DNA technology, bioinformatics, proteomics and genomics. Biotechnology regulations and ethics will also be discussed. Prereq: BIOL 4024: one year of general biology with a grade of "C-" or higher. BIOL 5024: graduate standing or permission of instructor. Cross-listed with BIOL 5024. **Semester Hours:** 3 to 3

BIOL 4050 - Advanced Biology Topics

Examines current topics in the field of biology. Topics vary from term to term. See Schedule Planner for current topics. Prereq: One year of general biology with grades of "C-" or higher. Cross-listed with BIOL 5050. **Semester Hours:** 1 to 8

BIOL 4051 - Advanced Topics In Microbiology

An in-depth study of microbial concepts, including prokaryotic and eukaryotic structure and function; properties of biological macromolecules; microbial growth kinetics; and microbial diversity. Emphasis is on one of the following: virology, microbial physiology, environmental microbiology, microbial biotechnology and nucleic acids. Prereq: General microbiology with a grade of "C-" or higher. Cross-listed with BIOL 5051. **Semester Hours:** 3 to 3

BIOL 4052 - Advanced Ecology

This combination seminar and lecture course focuses on state-of-field knowledge, current theories and recent models in selected areas of ecology, such as theoretical ecology, evolutionary ecology, population biology and ecosystems ecology. Prereq: Introductory ecology with a grade of "C-" or higher (BIOL 3411 or BIOL 3412 or equivalent). Cross-listed with BIOL 5052.

Semester Hours: 3 to 3

BIOL 4053 - Disease Ecology

The study of the underlying principles that influence the spatio-temporal patterns of infectious disease in environments. Students will apply ecological theories about concepts such as biodiversity, trophic interactions, landscape structure, and nutrient cycling to the study of disease. Prereq: Introductory Ecology with a grade of "C-" or higher. Cross-listed with BIOL 5053. **Semester Hours:** 3 to 3

BIOL 4054 - Developmental Biology

Covers gametogenesis, fertilization, cleavage and development of the embryo with an emphasis on the biochemical and biophysical aspects. Prereq: General cell biology with a grade of "C-" or higher. Cross-listed with BIOL 5054. **Semester Hours:** 3 to 3

BIOL 4064 - Advanced Cell Biology

Builds on the foundations laid in the prerequisite courses. Major topics include the functions of cell membranes, energy transduction and regulation of metabolic pathways. A major emphasis is the control and integration of cellular activities. Prereq: General cell biology and one semester of biochemistry with grades of "C-" or higher. Cross-listed with BIOL 5064. **Semester Hours:** 3 to 3

BIOL 4068 - The Cell Cycle

Provides an in-depth study of the molecular regulation of the eukaryotic cell cycle. Includes mitosis, meiosis, developmental cell cycles, cell cycle checkpoints and cell cycle defects in cancer. Prereq: General cell biology and general genetics with a **Semester Hours:** 3 to 3

BIOL 4074 - Human Reproductive Biology

Comprehensive study of anatomy and physiology of human reproduction. Embryogenesis of male and female reproductive systems and detailed analysis of contraception, world population growth, population control and implications of population growth are also covered. Prereq: One year of general biology with a grade of "C-" or higher. Cross-listed with BIOL 5074. **Semester Hours:** 3 to 3

BIOL 4125 - Molecular Biology Laboratory

Provides hands-on experiences in molecular biology and an appreciation for using the tools of molecular biology to study biological systems. Emphasis is placed on DNA cloning, PCR, mutagenesis and protein purification techniques. Experimental design and t **Semester Hours:** 3 to 3

BIOL 4126 - Molecular Genetics

Examines molecular techniques and their application to experimental genetics, specifically organization and mapping of genomes, application and model systems in defining hereditary components of disease, and mechanisms of identifying mutations and their implications for disease. Also addresses application of recombinant DNA technology. Prereq: General genetics and one year of organic chemistry (or equivalent) with grades of "C-" or higher; biochemistry strongly recommended. Cross-listed with BIOL 5126. **Semester Hours:** 3 to 3

BIOL 4128 - Topics in Molecular Biology

Literature-based course examining the regulation of gene expression in eukaryotic systems, as well as contemporary recombinant DNA technology and applications of molecular cloning techniques. Prereq: General cell biology and general genetics with a grade of "C-" or higher; biochemistry strongly recommended. Cross-listed with BIOL 5128. **Semester Hours:** 3 to 3

BIOL 4134 - Human Genetics

Advanced survey of the current status of the field. Emphasis on understanding, diagnosis and treatment of genetic disease and on the impact of molecular biology on human genetics. Prereq: General genetics with a grade of "C-" or higher. Cross-listed with 5134. **Semester Hours:** 3 to 3

BIOL 4144 - Medical Microbiology

Provides an understanding of the relationship between pathogenic organisms and their host. Emphasis is placed on the area of medical bacteriology, with attention given to mechanisms of pathogenesis, genetics of disease, serology and treatment. Prereq: general microbiology with a grade of "C-" or higher. Cross-listed with BIOL 5144. **Semester Hours:** 3 to 3

BIOL 4154 - Conservation Biology

Basic concepts and theories in ecology, population biology and genetics as they apply to issues relating to the preservation of biodiversity, such as the genetics of small populations, captive propagation, restoration ecology and the design of nature reserves. Prereq: Introductory ecology (BIOL 3411, 3412 or equivalent) with a grade of "C-" or higher. Cross-listed with BIOL 5154.

Semester Hours: 3 to 3

BIOL 4165 - Neurobiology

Overview of neuroscience, covering the cellular basis of neuronal activity, muscle, sensory structures and the structure and function of the human brain. Prereq: One year of general biology and general cell biology with grades of "C-" or higher. Cross-listed with BIOL 5165.

Semester Hours: 3 to 3

BIOL 4250 - Mechanisms of Animal Behavior

The proximate and ultimate mechanisms of animal behavior are analyzed using comparative animal examples from the scientific literature. Proximate mechanisms include genetic and physiological processes. Ultimate mechanisms include the role of natural and sexual selection in the evolution of behavior. Prereq: One year of general biology with a grade of "C-" or higher. Genetics and human physiology are recommended. Cross-listed with BIOL 5250.

Semester Hours: 3 to 3

BIOL 4315 - Plant Systematics

Lecture, lab and field trips. Extensive introduction to the basic principles and concepts of vascular plant systematics. Topics include principles of taxonomy, nomenclature, methods, systems of classification and field and herbarium procedures. Emphasis on plant structure and identification using fresh, frozen and pressed plant specimens. Prereq: One year of general biology with a grade of "C-" or higher. Cross-listed with BIOL 5315. **Semester Hours:** 4 to 4

BIOL 4335 - Plant Science

Lecture, lab and field trips. An in-depth study of flowering plants, including embryology, structure, function, reproduction, ecology and evolution of the group. Emphasis is placed upon morphology and anatomy at all stages of plant development. Prereq: One year of general biology (BIOL 2051, 2061, 2071, 2081) and General Cell Biology (BIOL 3611) with a grade of "C-" or higher. Cross-listed with BIOL 5335. **Semester Hours:** 4 to 4

BIOL 4345 - Flora of Colorado

Lecture, lab and field trips. Introduces the vascular plant flora of Colorado, including ferns, gymnosperms and flowering plants. Emphasis on field identification of species representing a range of natural communities from grassland to alpine tundra, as well as non-natives. Field and

herbarium techniques covered. Prereq: One year of general biology with a grade of "C-" or higher. Cross-listed with BIOL 5345. **Semester Hours:** 4 to 4

BIOL 4415 - Microbial Ecology

An in-depth study of ecology as it relates to microorganisms; abiotic and biotic interactions within microbial populations in macro- and microhabitats; and the role of microorganisms in maintaining steady state conditions in natural ecosystems. Emphasis is placed on how the ecology of microorganisms affects the human condition. Prereq: General microbiology with a grade of "C-" or higher. Cross-listed with BIOL 5415. **Semester Hours:** 3 to 3

BIOL 4416 - Aquatic Ecology

This advanced ecology course examines the inter-relations of biological (including humans), physical and chemical components of wetlands, streams, rivers, lakes, reservoirs and groundwater. Learning is facilitated through lectures, discussions, student presentations, laboratory and field exercises. Prereq: Introductory ecology (BIOL 3411, 3412 or equivalent) with a grade of "C-" or higher. Cross-listed with BIOL 5416. **Semester Hours:** 3 to 3

BIOL 4425 - Biogeography

An in-depth study of biological populations through analysis of geographic distribution patterns in space and time. Emphasis on how biogeography informs studies of evolution and ecology and on applied studies in conservation, sustainability, epidemiology, and disease dynamics. Prereq: One year of general biology with a grade of "C-" or higher. Cross-listed with BIOL 5425. **Semester Hours:** 3 to 3

BIOL 4450 - Marine Biology

Looks at the fascinating organisms that inhabit the oceans, which represent 99% of the living space of earth. While the focus is on the ecology of marine organisms, taxonomy, physiology and anatomy are also covered. Prereq: One year of general biology with a grade of "C-" or higher. Cross-listed with BIOL 5450. **Semester Hours:** 3 to 3

BIOL 4455 - Comparative Environmental Physiology

This advanced physiology course explores the physiological evolutionary adaptations of different animals in the context of their environment. Content includes exploration of maintenance of homeostasis via feedback regulation, structure-function relationships, cellular physiology, and the study of organ systems including the nervous, endocrine, respiratory, reproductive and cardiovascular systems. Prereq: Human or animal physiology with a grade of "C-" or higher. Cross-listed with BIOL 5455. **Semester Hours:** 3 to 3

BIOL 4460 - Environmental Toxicology

Text and literature-based course provides students with background knowledge concerning environmental toxins, the nature and extent of environmental contamination, and toxicant effects on individual organisms and populations. Prereq: Human Physiology with grades of "C-" or higher. Organic Chemistry and/or Biochemistry strongly recommended. Cross-listed with BIOL 5460. **Semester Hours:** 3 to 3

BIOL 4464 - Exercise Physiology

This course addresses the dynamic physiological changes associated with exercise. Where human physiology addresses physiological processes at rest, this course explores how the cardiovascular, respiratory, nervous and endocrine systems support increased energy transfer as skeletal muscle becomes more active. Cross-listed with BIOL 5464. **Semester Hours:** 3 to 3

BIOL 4474 - Ecological Methods

Deals with the empirical aspects of an ecological study. Students learn sampling techniques that are used in plant and animal ecology. Emphasis is placed on hypothesis testing, data analysis and experimental field designs. Prereq: Introductory ecology (BIOL 3411, 3412 or equivalent) with a grade of "C-" or higher. Cross-listed with BIOL 5474. **Semester Hours:** 4 to 4

BIOL 4475 - Mechanisms of Human Pathology

Studies physiological, cellular and biochemical processes in human diseases, with particular focus on non-communicable diseases such as diabetes, cardiovascular disease and diseases of aging such as osteoporosis and macular degeneration. Prereq: Human physiology with a grade of "C-" or higher; general cell biology or general microbiology strongly recommended. Cross-listed with BIOL 5475. **Semester Hours:** 3 to 3

BIOL 4494 - Population and Evolutionary Genetics

Introduces the genetic processes underlying evolutionary change in microbial, plant and animal populations. Topics include: sources of variation, Hardy-Weinberg equilibrium, population genetic structure, natural selection and other evolutionary forces, quantitative genetics and molecular phylogenetics. Emphasis on experimental data. Prereq: One year of general biology and general genetics with grades of "C-" or higher. Cross-listed with BIOL 5494. **Semester Hours:** 3 to 3

BIOL 4550 - Cell Signaling

Lecture by faculty and student presentations cover mechanism of hormones and regulation of various cellular processes through second messenger systems. Prereq: General cell biology with a grade of "C-" or higher; one semester of biochemistry recommended. Cross-listed with BIOL 5550. **Semester Hours:** 3 to 3

BIOL 4622 - Topics in Immunology

An in-depth study of immunological concepts. Topics will vary from semester to semester and may range from specifics of immune cell responses to tolerance and autoimmunity. Delivery will include lecture, student presentations, and discussion. Prereq: One year of general biology with a grade of 'C-' or higher; general cell biology and general genetics are recommended. Cross-listed with BIOL 5622. **Semester Hours:** 3 to 3

BIOL 4634 - Biology of Cancer

Cancer is the second leading cause of death in the United States. This course offers an overview of recent research into the causes, treatments and possible prevention of cancer. Includes a detailed look at the mechanisms of action of various oncogenes. Prereq: General cell biology

with a grade of 'C-' or higher; general genetics strongly recommended. Cross-listed with BIOL 5634. **Semester Hours:** 3 to 3

BIOL 4640 - Mammalogy

Lecture, laboratory, and required field trips. This course provides a general overview of the biology of mammals, including their diversity, distribution, economic importance, and other characteristics that make them of special interest to humans. Coverage will be worldwide, with special emphasis placed on the mammals of Colorado. Prereq: One year of general biology with grades of 'C-' or higher and completion of the structure/ function core requirement with a grade of 'C-' or higher. Cross-listed with BIOL 5640. **Semester Hours:** 4 to 4

BIOL 4644 - Advanced Human Anatomy Laboratory

Advanced laboratory course in human anatomy. In-depth look at the structural aspects of the human body, emphasizing function. Models, microscope slides, and visual media will supplement cadaver-based dissections. Prereq: One year of general biology and human anatomy with a grade of "C-" (2.0) or higher. Cross-listed with BIOL 5644. **Semester Hours:** 2 to 2

BIOL 4674 - Endocrinology

This systematic survey of the endocrine system looks at the cellular basis and biochemical characteristics of individual endocrine tissues. Their function in the regulation of other endocrinological, physiological, and behavioral events is analyzed. The course emphasizes the human system and complements studies in physiology, behavior and neurobiology. Prereq: Human physiology with a grade of "C-" or higher. Cross-listed with BIOL 5674. **Semester Hours:** 3 to 3

BIOL 4840 - Independent Study

Note: Registration by special processing form only. Prereq: One year of general biology with a grade of "C-" or higher and permission of instructor. **Semester Hours:** 1 to 6

BIOL 4910 - Field Studies

Field studies of individuals, populations and communities comprising a specified ecosystem. Emphasis on field identification of vascular plants and vertebrate animals. Topics include the physical environment, biotic and abiotic interactions, life history, ecological adaptations and biogeography. Note: Lectures and a week-long field trip. Prereq: One year of general biology and ecology with grades of "C-" or higher; permission of instructor. Cross-listed with BIOL 5910. **Semester Hours:** 3 to 3

BIOL 4974 - Evolution

A capstone course that draws upon concepts from all fields of biology. Topics include the fossil record, mass extinctions, the historical development of the modern synthesis, principles and mechanisms of evolution, current viewpoints and controversies. Prereq: One year of general biology and general genetics with grades of "C-" or higher; junior or senior standing strongly recommended. Cross-listed with BIOL 5974. **Semester Hours:** 3 to 3

BIOL 4990 - Undergraduate Research Seminar

Introduces research in the biological sciences. Students read current scientific literature, attend related seminars and participate in discussions. This course offers students a chance to interact with visiting scientists, who will present state-of-the-field biological research in a seminar setting. Prereq: Senior standing, satisfactory completion of all biology core courses, overall GPA of 3.0 or higher and permission of instructor. Cross-listed with BIOL 6655. **Semester Hours:** 1 to 1

BIOL 5001 - RM-MSMSP: Cells, Human Systems and Heredity

Systematic study of key concepts in cell structure and function; energy transformations in living systems, functioning of human systems in health or disease, patterns or process of human inheritance and biotechnology impacts on human society. Concepts are linked to other scientific, mathematical, societal and pedagogical domains. This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: Permission of project director. **Semester Hours:** 4 to 4

BIOL 5002 - RM-MSMSP: Ecology, Biodiversity and Adaptation

Systematic study of biological concepts including ecosystems, population dynamics, food chains, biodiversity and evolutionary processes. Instruction is inquiry-based and interactive. Concepts are linked to other scientific, mathematical, societal and pedagogical domains. This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: Permission of instructor (project director). **Semester Hours:** 4 to 4

BIOL 5003 - RM-MSMSP: The Biology of Life: Integrated Perspectives

Uses an integrated approach to investigate current biological, ecological and environmental issues including biofuels, climate change, red tides, coral bleaching, biomagnifications of toxins, acid rain and population growth. Note: This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: BIOL 5001 and BIOL 5002 or permission of instructor. **Semester Hours:** 4 to 4

BIOL 5004 - Research Experience for Teachers - Biology Cohort

The Research Experience for Teachers (RET) program is a five-week research exploration in which twelve RM-MSMSP teachers will raise their level of relevant scientific understanding by engaging in a "hands on" workshop, transforming what they have learned into new curricular materials that will improve the scientific abilities of their students and hopefully stimulate them to consider a STEM career. Note: This course is not applicable toward any degree in the College of Liberal Arts & Sciences. **Semester Hours:** 1 to 6

BIOL 5024 - Introduction to Biotechnology

Introduces aspects of biotechnology within a historical context, including medical, forensic, agricultural and microbial biotechnology. Addresses principles behind state-of-the-field techniques in recombinant DNA technology, bioinformatics, proteomics and genomics. Biotechnology regulations and ethics will also be discussed. Prereq: BIOL 4024: one year of general biology with a grade of "C" (2.0) or higher. BIOL 5024: graduate standing or permission of instructor. Cross-listed with BIOL 4024. **Semester Hours:** 3 to 3

BIOL 5050 - Advanced Biology Topics

Examines current topics in the field of biology. Topics vary from term to term. See Schedule Planner for current topics. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4050. **Semester Hours:** 1 to 8

BIOL 5051 - Advanced Topics In Microbiology

An in-depth study of microbial concepts, including prokaryotic and eukaryotic structure and function; properties of biological macromolecules; microbial growth kinetics; and microbial diversity. Emphasis is on one of the following: virology, microbial physiology, environmental microbiology, microbial biotechnology and nucleic acids. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4051. **Semester Hours:** 3 to 3

BIOL 5052 - Advanced Ecology

This combination seminar and lecture course focuses on state-of-field knowledge, current theories and recent models in selected areas of ecology, such as theoretical ecology, evolutionary ecology, population biology and ecosystems ecology. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4052. **Semester Hours:** 3 to 3

BIOL 5053 - Disease Ecology

The study of the underlying principles that influence the spatio-temporal patterns of infectious disease in environments. Students will apply ecological theories about concepts such as biodiversity, trophic interactions, landscape structure, and nutrient cycling to the study of disease. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4053. **Semester Hours:** 3 to 3

BIOL 5054 - Developmental Biology

Covers gametogenesis, fertilization, cleavage and development of the embryo with an emphasis on the biochemical and biophysical aspects. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4054. **Semester Hours:** 3 to 3

BIOL 5064 - Advanced Cell Biology

Builds on the foundations laid in the prerequisite courses. Major topics include the functions of cell membranes, energy transduction and regulation of metabolic pathways. A major emphasis is the control and integration of cellular activities. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4064. **Semester Hours:** 3 to 3

BIOL 5068 - The Cell Cycle

Provides an in-depth study of the molecular regulation of the eukaryotic cell cycle. Includes mitosis, meiosis, developmental cell cycles, cell cycle checkpoints and cell cycle defects in cancer. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

BIOL 5074 - Human Reproductive Biology

Comprehensive study of anatomy and physiology of human reproduction. Embryogenesis of male and female reproductive systems and detailed analysis of contraception, world population growth, population control and implications of population growth are also covered. Prereq:

Graduate standing or permission of instructor. Cross-listed with BIOL 4074. **Semester Hours:** 3 to 3

BIOL 5099 - Biology For Computer Scientists, Engineers and Mathematicians

Designed to give a foundation in molecular biology for work in the field of computational biology or bioinformatics. The goal of this new field is to provide predictive capability for diagnosing disease and discovering therapeutics. Prereq: B.S. in computer science, engineering, mathematics or a related discipline. Graduate standing or permission of the instructor.

Semester Hours: 3 to 3

BIOL 5125 - Molecular Biology Lab

Provides hands-on experiences in molecular biology and an appreciation for using the tools of molecular biology to study biological systems. Emphasis is placed on DNA cloning, PCR, mutagenesis and protein purification techniques. Experimental design and the theories underlying the techniques are also discussed. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4125. **Semester Hours:** 3 to 3

BIOL 5126 - Molecular Genetics

Examines molecular techniques and their application to experimental genetics, specifically organization and mapping of genomes, application and model systems in defining hereditary components of disease, and mechanisms of identifying mutations and their implications for disease. Also addresses application of recombinant DNA technology. Prereq: General genetics and one year of organic chemistry (or equivalent) with grades of "C" (2.0) or higher; biochemistry strongly recommended. Graduate standing or permission of the instructor. Cross-listed with BIOL 4126. **Semester Hours:** 3 to 3

BIOL 5128 - Topics in Molecular Biology

Literature-based course examining the regulation of gene expression in eukaryotic systems, as well as contemporary recombinant DNA technology and applications of molecular cloning techniques. Prereq: General cell biology and general genetics with a grade of "C" (2.0) or higher; biochemistry strongly recommended. Graduate standing or permission of the instructor. Cross-listed with BIOL 4128. **Semester Hours:** 3 to 3

BIOL 5134 - Human Genetics

Advanced survey of the current status of the field. Emphasis on understanding, diagnosis and treatment of genetic disease and on the impact of molecular biology on human genetics. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4134. **Semester Hours:** 3 to 3

BIOL 5144 - Medical Microbiology

Provides an understanding of the relationship between pathogenic organisms and their host. Emphasis is placed on the area of medical bacteriology, with attention given to mechanisms of pathogenesis, genetics of disease, serology and treatment. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4144. **Semester Hours:** 3 to 3

BIOL 5154 - Conservation Biology

Basic concepts and theories in population biology and genetics as they apply to issues relating to the preservation of biodiversity, such as the genetics of small populations, captive propagation, restoration ecology and the design of nature reserves. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4154. **Semester Hours:** 3 to 3

BIOL 5165 - Neurobiology

Overview of neuroscience, covering the cellular basis of neuronal activity, muscle, sensory structures and the structure and function of the human brain. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4165. **Semester Hours:** 3 to 3

BIOL 5250 - Mechanisms of Animal Behavior

The proximate and ultimate mechanisms of animal behavior are analyzed using comparative animal examples from the scientific literature. Proximate mechanisms include genetic and physiological processes. Ultimate mechanisms include the role of natural and sexual selection in the evolution of behavior. Prereq: One year of general biology with a grade of "C" (2.0) or higher. Genetics and human physiology are recommended. Graduate standing or permission of the instructor. Cross-listed with BIOL 4250. **Semester Hours:** 3 to 3

BIOL 5315 - Plant Systematics

Lecture, lab and field trips. Extensive introduction to the basic principles and concepts of vascular plant systematics. Topics include principles of taxonomy, nomenclature, methods, systems of classification and field and herbarium procedures. Emphasis on plant structure and identification using fresh, frozen and pressed plant specimens. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4315. **Semester Hours:** 4 to 4

BIOL 5330 - Evolution and Diversification of Plants

Surveys the diverse assemblage of green algae and land plants. Ecological and evolutionary principles are used to interpret patterns of form and function within the context of their phylogeny as revealed from molecular systematics. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

BIOL 5335 - Plant Science

Lecture, lab and field trips. An in-depth study of flowering plants, including embryology, structure, function, reproduction, ecology and evolution of the group. Emphasis is placed upon morphology and anatomy at all stages of plant development. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4335. **Semester Hours:** 4 to 4

BIOL 5345 - Flora of Colorado

Lecture, lab and field trips. Introduces the vascular plant flora of Colorado, including ferns, gymnosperms and flowering plants. Emphasis on field identification of species representing a range of natural communities from grassland to alpine tundra, as well as non-natives. Field and herbarium techniques covered. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4345. **Semester Hours:** 4 to 4

BIOL 5415 - Microbial Ecology

An in-depth study of ecology as it relates to microorganisms; abiotic and biotic interactions within microbial populations in macro- and microhabitats; and the role of microorganisms in maintaining steady state conditions in natural ecosystems. Emphasis is placed on how the ecology of microorganisms affects the human condition. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4415. **Semester Hours:** 3 to 3

BIOL 5416 - Aquatic Ecology

This advanced ecology course examines the inter-relations of biological (including humans), physical and chemical components of wetlands, streams, rivers, lakes, reservoirs and groundwater. Learning is facilitated through lectures, discussions, student presentations, laboratory and field exercises. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4416. **Semester Hours:** 3 to 3

BIOL 5425 - Biogeography

An in-depth study of biological populations through analysis of geographic distribution patterns in space and time. Emphasis on how biogeography informs studies of evolution and ecology and on applied studies in conservation, sustainability, epidemiology, and disease dynamics. Prereq: One year of general biology with a grade of "C" (2.0) or higher. Graduate standing or permission of the instructor. Cross-listed with BIOL 4425. **Semester Hours:** 3 to 3

BIOL 5445 - Applied Environmental Biology

Examines the reciprocal relationships of organisms and the environment at scales from microbes to ecosystems. Explores the impact of human-caused perturbations on organisms as well as the impact of living systems on the flow of energy and materials (natural and man-made) through the environment. Prereq: Graduate standing or permission of instructor; one year of general biology and one year of general chemistry; introductory ecology recommended. **Semester Hours:** 3 to 3

BIOL 5450 - Marine Biology

Looks at the fascinating organisms that inhabit the oceans, which represent 99% of the living space of earth. While the focus is on the ecology of marine organisms, taxonomy, physiology and anatomy are also covered. Prereq: One year of general biology. Graduate standing or permission of the instructor. Cross-listed with BIOL 4450. **Semester Hours:** 3 to 3

BIOL 5455 - Comparative Environmental Physiology

This advanced physiology course explores the physiological evolutionary adaptations of different animals in the context of their environment. Content includes exploration of maintenance of homeostasis via feedback regulation, structure-function relationships, cellular physiology, and the study of organ systems including the nervous, endocrine, respiratory, reproductive and cardiovascular systems. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4455. **Semester Hours:** 3 to 3

BIOL 5460 - Environmental Toxicology

Text and literature-based course provides students with background knowledge concerning environmental toxins, the nature and extent of environmental contamination, and toxicant effects on individual organisms and populations. Prereq: Human Physiology with grades of "C" (2.0) or higher. Organic Chemistry and/or Biochemistry strongly recommended. Cross-listed with BIOL 4460. **Semester Hours:** 3 to 3

BIOL 5464 - Exercise Physiology

This course addresses the dynamic physiological changes associated with exercise. Where human physiology addresses physiological processes at rest, this course explores how the cardiovascular, respiratory, nervous and endocrine systems support increased energy transfer as skeletal muscle becomes more active. Cross-listed with BIOL 4464. **Semester Hours:** 3 to 3

BIOL 5474 - Ecological Methods

Lecture, laboratory. Deals with the empirical aspects of an ecological study. Students learn sampling techniques that are used in plant and animal ecology. Emphasis is placed on hypothesis testing, data analysis and experimental field designs. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4474. **Semester Hours:** 4 to 4

BIOL 5475 - Mechanisms of Human Pathology

Studies physiological, cellular and biochemical processes in human diseases, with particular focus on non-communicable diseases such as diabetes, cardiovascular disease and diseases of aging such as osteoporosis and macular degeneration. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4475. **Semester Hours:** 3 to 3

BIOL 5494 - Population and Evolutionary Genetics

Introduces the genetic processes underlying evolutionary change in microbial, plant and animal populations. Topics include: sources of variation, Hardy-Weinberg equilibrium, population genetic structure, natural selection and other evolutionary forces, quantitative genetics and molecular phylogenetics. Emphasis on experimental data. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4494. **Semester Hours:** 3 to 3

BIOL 5550 - Cell Signaling

Lecture by faculty and student presentations cover mechanism of hormones and regulation of various cellular processes through second messenger systems. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4550. **Semester Hours:** 3 to 3

BIOL 5621 - Immunology

Studies antibody-antigen interactions, the immune system, inflammation, hypersensitivity, autoimmunity, and recovery from infection. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4621. **Semester Hours:** 3 to 3

BIOL 5622 - Topics in Immunology

An in-depth study of immunological concepts. Topics will vary from semester to semester and may range from specifics of immune cell responses to tolerance and autoimmunity. Delivery will

include lecture, student presentations, and discussion. Prereq: One year of general biology with a grade of 'C' or higher; general cell biology and general genetics are recommended. Graduate standing or permission of the instructor. Cross-listed with BIOL 4622. **Semester Hours:** 3 to 3

BIOL 5634 - Biology of Cancer

Cancer is the second leading cause of death in the United States. This course offers an overview of recent research into the causes, treatments and possible prevention of cancer. Includes a detailed look at the mechanisms of action of various oncogenes. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4634. **Semester Hours:** 3 to 3

BIOL 5640 - Mammalogy

Lecture, laboratory, and required field trips. This course provides a general overview of the biology of mammals, including their diversity, distribution, economic importance, and other characteristics that make them of special interest to humans. Coverage will be worldwide, with special emphasis placed on the mammals of Colorado. Prereq: One year of general biology with grades of 'C' (2.0) or higher and completion of the structure/ function core requirement with a grade of 'C' (2.0) or higher. Graduate standing or permission of the instructor. Cross-listed with BIOL 4640. **Semester Hours:** 4 to 4

BIOL 5644 - Advanced Human Anatomy Laboratory

Advanced laboratory course in human anatomy. In-depth look at the structural aspects of the human body, emphasizing function. Models, microscope slides, and visual media will supplement cadaver-based dissections. Prereq: One year of general biology and human anatomy with a grade of "C-" (2.0) or higher, graduate standing or permission of instructor. Cross-listed with BIOL 4644. **Semester Hours:** 2 to 2

BIOL 5674 - Endocrinology

This systematic survey of the endocrine system looks at the cellular basis and biochemical characteristics of individual endocrine tissues. Their function in the regulation of other endocrinological, physiological, and behavioral events is analyzed. The course emphasizes the human system and complements studies in physiology, behavior and neurobiology. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4674. **Semester Hours:** 3 to 3

BIOL 5705 - Principles of Biological Research

Workshop course for students engaged in original research. Covers topics including proposal and grant writing, study design, data management and analysis, discovery dissemination including poster and oral presentations, manuscript presentation, peer review and critical evaluation of scholarly work in biology. Note: Course is aimed at research students at the graduate level but advanced undergraduate students may have the opportunity to take the class. Biology graduate students will take the course at the 6000 level and the 5000 level will be available for advanced undergraduate students. Prereq: Students involved in original research and permission of instructor. Cross-listed with BIOL 6705. **Semester Hours:** 2 to 2

BIOL 5840 - Independent Study: BIOL

Note: Registration by special processing form only. Prereq: Permission of instructor. **Semester Hours:** 1 to 3

BIOL 5910 - Field Studies

Field studies of individuals, populations and communities comprising a specified ecosystem. Emphasis on field identification of vascular plants and vertebrate animals. Topics include the physical environment, biotic and abiotic interactions, life history, ecological adaptations and biogeography. Note: Lectures and a week-long field trip. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4910. **Semester Hours:** 3 to 3

BIOL 5939 - Internship

Designed experience involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Graduate standing. **Semester Hours:** 1 to 6

BIOL 5974 - Evolution

A capstone course that draws upon concepts from all fields of biology. Topics include the fossil record mass extinctions, the historical development of the modern synthesis, principles and mechanisms of evolution, current viewpoints and controversies. Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4974. **Semester Hours:** 3 to 3

BIOL 6002 - Biology Skills Sets - Pedagogy

The purpose is to introduce sound practice in teaching and innovation in pedagogy. Topics covered will include assessment techniques, creation of learning goals, and research methods in biological education. Prereq: Graduate standing. **Semester Hours:** 1 to 1

BIOL 6010 - Topics in Integrative and Systems Biology

Addresses current research problems in integrative biology and system biology by surveying the peer-reviewed literature. Particular attention will be paid to research topics that integrate multiple levels of biological organization and that investigate how properties of systems emerge from interactions of sub-units. Note: New students to the doctoral program in Integrative and Systems Biology will enroll in this course for the fall and spring terms of their first year. The course can only be taken twice; however, students will be exposed to new material both terms. Prereq: graduate standing. **Semester Hours:** 3 to 3

BIOL 6650 - Research in Integrative and Systems Biology

Designed to allow doctoral students to conduct research for course credit prior to advancement to candidacy. Prereq: Ph.D. student and permission of instructor. **Semester Hours:** 1 to 3

BIOL 6655 - Seminar

Prereq: Graduate standing or permission of instructor. Cross-listed with BIOL 4990. **Semester Hours:** 1 to 1

BIOL 6705 - Principles of Biological Research

Workshop course for students engaged in original research. Covers topics including proposal and grant writing, study design, data management and analysis, discovery dissemination including poster and oral presentations, manuscript presentation, peer review and critical evaluation of scholarly work in biology. Note: Course is aimed at research students at the graduate level but advanced undergraduate students may have the opportunity to take the class. Biology graduate students will take the course at the 6000 level and the 5000 level will be available for advanced undergraduate students. Prereq: Students involved in original research, graduate standing, and permission of instructor. Cross-listed with BIOL 5705. **Semester Hours: 2 to 2**

BIOL 6764 - Biological Data Analysis

Addresses quantitative aspects of research design, data collection and analysis in the biological sciences. Emphasizes relationships among probability theory, estimation, testing, inference, and interpretation. Hands-on computational methods used throughout the course. Prereq: Graduate standing, BIOL 3763 or equivalent with a "B" (3.0) or higher, or permission of instructor. **Semester Hours: 3 to 3**

BIOL 6950 - Master's Thesis

Semester Hours: 1 to 8

BIOL 9000 - INTC: Special Topics

Semester Hours: 1 to 10

Business Law Courses (BLAW)

BLAW 3000 - Legal and Ethical Environments of Business I

Addresses the most fundamental ways the legal and ethical environments of business affect managers. Students are taught to identify legal issues, make ethical judgments about business conduct, and understand the ways ethical and social issues are developed. Topics include actual analysis of legal and ethical issues, ethical theory and its application, law-making processes, contracts, torts, product liability, criminal law, constitutional law and real property. This is a business core course therefore a grade of "C" or better must be earned to satisfy Business graduation requirements and prerequisites for other business courses. Prereq: Junior Standing.

Semester Hours: 3 to 3 **When Offered:** *FASPRSUM*

BLAW 3050 - Business Law and Ethics

Students are taught to identify & resolve legal and ethical issues. Topics include contracts, torts, criminal law, constitutional law, business organizations, employment law, intellectual property and real property law. This is a business core course therefore a grade of "C" or better must be earned to satisfy Business graduation requirements. **Semester Hours:** 3 to 3

BLAW 3100 - Legal and Ethical Implications of Risk

Topics include contracts, torts, constitutional law, intellectual property, agency, business organizations, employment law, and real property law. Special focus is placed on the relationship between insurance and risk and the topics covered. May be taken in lieu of BLAW 3050. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

BLAW 4120 - Legal Issues for Entrepreneurs

Skills in legal and factual analysis and the application of ethical theories are addressed with an emphasis on applicability for entrepreneurs. The cases are drawn from a variety of functional areas such as accounting, information systems, finance, management, marketing and production. Topics include securities, venture capital, employment law and consumer law. Cross-listed with ENTP 3120. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

BLAW 4121 - Legal and Ethical Implications of Risk

Skills in legal and factual analysis and the application of ethical theories are advanced and refined through cases. Topics: insurance law, personal property and intellectual property law, agency, business entities, securities, employment law, and consumer law. Focus is placed on the relationship between insurance, risk and the covered topics. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

BLAW 6500 - Legal Issues for CPA's

Examines advanced legal issues affecting accounting financial reporting. Designed for graduate students who want to understand and improve the links between accounting disclosures and legal requirements. Note: This class is rarely offered. Prereq: BLAW 3000 or BUSN 6540 (or equivalent). **Semester Hours:** 3 to 3

Business Courses (BUSN)

BUSN 5939 - Internship

Semester Hours: 1 to 3

BUSN 6520 - Managing Individuals and Teams

Students learn the strengths and weaknesses of their management style and how to work effectively with individual differences. Students also learn how to form teams around purpose/task, diagnose problems and identify and implement solutions by utilizing leadership skills such as setting goals, processes and measures, interpersonal communication, motivation and conflict management. Students develop an understanding of the effect of the organizational and social context on the behavior of individuals and teams. **Semester Hours:** 3 to 3

BUSN 6521 - Managing Individuals and Teams (Health Section)

Students learn the strengths and weaknesses of their management style and how to work effectively with individual differences. Students also learn how to form teams around purpose/task, diagnose problems and identify and implement solutions by utilizing leadership skills such as setting goals, processes and measures, interpersonal communication, motivation and conflict management. Students develop an understanding of the effect of the organizational and social context on the behavior of individuals and teams. The emphasis is on health care issues and is intended for health care students. **Semester Hours:** 3 to 3

BUSN 6530 - Data Analysis for Managers

Provides an overview of techniques for data analysis, including multiple regression, sampling theory and applications of probabilistic inference from sample data. The emphasis is upon the applications of these techniques to management problems. Students are required to analyze data sets, present their analyses in written or oral form and defend their conclusions. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

BUSN 6540 - Legal and Ethical Environment of Business

Students develop a working knowledge of legal and ethical parameters for business decision making. The course addresses the legal system and mechanisms for resolving disputes. Topics include constitutional law, torts, product liability, contracts, property law, consumer protection, intellectual property, business entities and employment law. It stresses the influence of legal issues on organizational decision making. Note: Students can substitute ENTP 6822 but credit cannot be received for both. Health Administration students must take BUSN 6541. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

BUSN 6541 - Legal and Ethical Environment of Business (Health Section)

Students develop a working knowledge of legal and ethical parameters for business decision making. Addresses the legal system and mechanisms for resolving disputes. Topics include business entities, torts, contracts, employment relationships, litigation and alternative dispute resolution. It stresses the influence of legal issues on organization and decision making. The emphasis is on health care issues and is intended for health care students. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

BUSN 6550 - Analyzing and Interpreting Accounting Information

Emphasizes the use of accounting statements and data in making business decisions. External financial accounting information and concepts are used for investment and credit decisions. Internal managerial accounting information and concepts are used for product costing, cost analysis and management control. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

BUSN 6560 - Marketing Management

Focuses on the formulation and implementation of a marketing plan in the context of the firm's strengths, overall strategy and competitive environment. Emphasis is on understanding the marketing environment and on decision making skills regarding market selection, pricing, promotion, product configuration and management of distribution channels. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

BUSN 6610 - Information Systems Management and Strategy

Examines the strategic, technological, financial and organizational issues involved with the effective management of information technology. Topics include: (1) role and importance of IT in modern organizations (e.g., IT impact on competitiveness, alignment of corporate and IT strategies, IT infrastructures and IT-enabled organizational processes), (2) alternative methods to develop, acquire and implement information systems (e.g.) evaluation of IT investments, implementing and managing complex IT projects), (3) nature of IT management (e.g., the evolving roles of enterprise IT management, IT sourcing and contractual relationships) and (4) ethical and security issues associated with IT. Note: Students cannot receive credit if they have taken BUSN 6810 or ISMG 6180. Cross-listed with ISMG 6180. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

BUSN 6620 - Applied Economics for Managers

After taking this course, students should be able to apply economic principles to make optimal decisions given firm cost, demand and market circumstances. Also, they should be able to analyze the firms interactions with its competitive market environment. Students will learn basic aspects of federal macroeconomic policy designed to achieve stable prices and economic growth. Also, they will learn to understand the measurement of output (GDP), employment and prices; the conduct of monetary and fiscal policy; and the balance of trade. Prereq: BUSN 6530 or FNCE 6290 and BUSN 6550, both may be taken concurrently. **Semester Hours:** 3 to 3

BUSN 6621 - Applied Economics for Managers (Health Section)

After taking this course, students should be able to apply economic principles to make optimal decisions given firm cost, demand and market circumstances. Also, they should be able to analyze the firm's interactions with its competitive market environment. Students should understand basic aspects of federal macroeconomics policy designed to achieve stable prices and economic growth. Also, they should understand basic aspects of government regulation of business. The emphasis is on healthcare issues and is intended for healthcare students. Prereq: BUSN 6530 and BUSN 6550, both may be taken may concurrently. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

BUSN 6630 - Management of Operations

This course is concerned with the production and delivery of goods and services. It provides an overview of a variety of key Operation Management issues including scheduling, capacity determination, facility location and layout, distribution and related t **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

BUSN 6631 - Management of Operations (Health Section)

This course focuses on managing and evaluating the processes that produce and deliver health services. Particular emphasis is on quantitative techniques to support healthcare operations including Monte Carlo simulation, decision analysis, quality improvement methods, forecasting, capacity planning, project management and inventory and supply chain management. While this course is intended for healthcare students, it is open to all. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

BUSN 6640 - Financial Management

This course is concerned with the business firm's decisions to make investments and to finance its operations. Students learn to use the tools and theories underlying business valuation, cost of capital, capital budgeting and capital structure. Students w **Semester Hours:** 3 to 3

BUSN 6710 - Strategic Management

Concerned with the development of a general management perspective in establishing the strategic direction for an enterprise. Students gain an understanding of strategy formulation and implementation within the context of the global environment. Emphasis **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

BUSN 6711 - Strategic Management (Health Section)

Concerned with the development of a general management perspective in establishing the strategic direction for a health delivery organization. Students gain an understanding of strategy formulation and implementation within the context of the managed care environment. Emphasis is on the integration of knowledge acquired in the previous functional area courses. Note: This course is intended as a final semester course. Required of Health Administration majors; open to others. Prereq: BUSN 6560 and 6640 - strictly enforced; BUSN 6630 strongly recommended and may betaken concurrently. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

BUSN 6800 - Topics In Business

Current topics in business are occasionally offered. Prerequisites vary depending on the material covered. Consult the current 'schedule planner' for specific offerings and prerequisites. **Semester Hours:** 3 to 3

BUSN 6811 - IT and New Business Paradigms

Introduces graduate students to the relationship between information technology and the other functional areas of the business. During the course, students have an opportunity to listen and learn from guest speakers who have been involved with either guiding or interpreting the impact of information technology among functional areas of existing or new business. Through the use

of current readings, guest lectures and case analysis, students examine various models of IT and new business paradigms to determine the decisions and success criteria for integrating It in ongoing business. a unique feature of the class will be the opportunity for students to present proposals and projects to be critiqued by individuals with It or business experience. Those individuals provide feedback and perspectives regarding potential It or new business paradigm activities. Prereq: Permission of instructor. **Semester Hours:** 3 to 3

BUSN 6812 - Business Intelligence Systems

Covers technical and managerial issues associated with the development and the use of decision support systems, expert systems, impacts and the future of MSS are discussed. The DSS component covers decision theory, model management, and business intelligence with an emphasis on how decision-making can be supported using data warehouses, OLAP, and data mining and visualization tools. The ES component focuses on knowledge acquisition, representation, reasoning, and using advanced intelligent systems over the web. In addition, collaboration, communication, enterprise decision support systems integration, impacts, and the future of MSS are discussed. Prereq: ISMG 6080 (not strictly enforced). Cross-listed with ISMG 6220. **Semester Hours:** 3 to 3

BUSN 6826 - Supply Chain Management

Introduces the design, analysis, management, and control of supply chains. Because of continuing advances in globalization, sustainability, and information technology, course emphasis will include integration of processes and systems, relationship management of upstream and downstream players, and strategies that incorporate current and future trends. Note: Cannot receive credit for both BUSN 6826 and DSCI 6826. Prereq: BUSN 6630 strictly enforced, or consent of instructor. Cross-listed with DSCI 6826. **Semester Hours:** 3 to 3

BUSN 6830 - Business and the Natural Environment

Considers the impact of economic activity on the natural environment and the regulatory, market and corporate voluntary responses to reducing this impact. Topics: externalities, life cycle assessment, closed-loop systems, DfE (Design for the Environment), corporate sustainability reporting, and effective corporate sustainability strategies. **Semester Hours:** 3 to 3

BUSN 6834 - Simulation Modeling

Students learn to model and analyze complex dynamic systems using state-of-the art software such as Arena. Illustrative application areas include production systems, service systems, distribution systems and health care systems. Topics include creating reliable simulation models, analyzing the input and output from the model and managing simulation projects. A substantial part of the course will be devoted to projects where students define, model and analyze a significant system of their choosing. Note: Cannot receive credit for both DSCI 6480 and BUSN 6834. Prereq: Permission of instructor. Cross-listed with DSCI 6480. **Semester Hours:** 3 to 3

BUSN 6840 - Independent Study

Semester Hours: 1 to 3

BUSN 6850 - Accounting and Finance for Sustainability

Topics related to business sustainability: corporate sustainability and GHG reporting, limitations of national reporting systems, measuring and reporting environmental liabilities, emissions trading, evaluating green investments, green banking, shareholder activism related to sustainability, microfinance and socially responsible investing. Prereq: BUSN 6550 and BUSN 6640 recommended. (not strictly enforced) **Semester Hours:** 3 to 3

BUSN 6860 - Finance in the Sports Entertainment Industries

This course explores the problems and solutions of financing in sports and entertainment business. It focuses on stadium/venue financing, sports team valuation, entertainment event guarantee estimation, player/artist salary issues and managing disparate revenue streams. The course utilizes speakers, articles, problem sets and cases. Prereq: BUSN 6640. **Semester Hours:** 3 to 3

BUSN 6870 - Global Climate Change

Global climate change may be one of the most important challenges facing business in the 21st century. This course will introduce the potential impacts of climate, then discuss possible regulatory responses to and business risks and opportunities that may emerge if climate change occurs. Cross-listed with INTB 6870. **Semester Hours:** 3 to 3

Candidate for Degree Courses (CAND)

CAND 5940 - Candidate for Degree

Semester Hours: 0 to 0

Chemistry Courses (CHEM)

CHEM 1000 - Foundations for General Chemistry

This course prepares for CHEM 2031 or 1130. Note: For students with no previous chemistry or with inadequate background. Prereq: MATH 1110 or high school equivalent. **Semester Hours:** 3 to 3

CHEM 1111 - Freshman Seminar

Semester Hours: 1 to 3

CHEM 1115 - Chemistry Content

Covers content areas of undergraduate chemistry. Topics include periodicity; the mole and chemical bonding; the kinetic theory and states of matter; chemical reactions; solutions and chemical equilibria. **Semester Hours:** 1 to 3

CHEM 1130 - Engineering General Chemistry

A one-semester non-laboratory version of general chemistry for engineers and those science majors who do not require laboratory credit and do not plan to take a second semester of chemistry. Prereq: One year of high school chemistry or Chem 1000 and Math 1110 (or high school equivalent). **Semester Hours:** 5 to 5

CHEM 1474 - Core Chemistry: Chemistry For the Consumer

Focuses on the common household chemicals that affect US on a daily basis. Students learn the underlying chemistry of nuclear power, sunscreens, food, cleaning agents, etc. Home-based laboratory experiments with safe, common substances. **Semester Hours:** 4 to 4

CHEM 2031 - General Chemistry I

Topics include chemical structure, atomic and molecular properties, molecular geometry and bonding, and gas laws. Prepares students to take upper division chemistry courses. Note: a beginning course for science majors, medical technologists, pre-medical and pre-dental students. Prereq: One year of high school chemistry or CHEM 1000 and MATH 1110 (or high school equivalent); Coreq: CHEM 2038. **Semester Hours:** 3 to 3

CHEM 2038 - General Chemistry Laboratory I

Students perform laboratory experiments on topics covered in CHEM 2031 and gain experience in observing, recording, and interpreting physical and chemical phenomena. Note: Laboratory to accompany CHEM 2031. Coreq: CHEM 2031. **Semester Hours:** 1 to 1

CHEM 2061 - General Chemistry II

(Continuation of CHEM 2031.) Topics include kinetics, equilibria and thermodynamics. Prereq: CHEM 2031; Coreq: CHEM 2068. **Semester Hours:** 3 to 3

CHEM 2068 - General Chemistry Laboratory II

Students gain experience with laboratory technique and elementary chemical instrumentation.

Note: Laboratory to accompany CHEM 2061 and a continuation of CHEM 2038. Prereq: CHEM 2038; Coreq: CHEM 2061. **Semester Hours:** 2 to 2

CHEM 2081 - Honors General Chemistry I

Honors Section: Course will omit detailed discussion of stoichiometry and basic atomic structure. Topics include gas laws, thermochemistry, the quantum mechanical model of the atom, periodic properties, bonding and molecular geometry and intermolecular forces. Prepares students to take upper division chemistry courses. Note: Admission into specific UC Denver program or consent of the instructor is required. Prereq: Working knowledge of high school algebra and advanced high school chemistry. Coreq: CHEM 2088. **Semester Hours:** 3 to 3

CHEM 2088 - Honors General Chemistry I Laboratory

Students perform laboratory experiments on topics covered in General Chemistry I (CHEM 2031) or the companion Honors General Chemistry I course. Students gain experience in observing, recording, and interpreting physical and chemical phenomena. Honors General Chemistry I Laboratory is distinguished from the regular General Chemistry Laboratory by smaller sections, and greater access to specialized techniques, open ended experiments, and instrumentation. Students are introduced to college-level laboratory exercises at a faster pace than traditional General Chemistry laboratory coursework, such that at the end of this course, they are ready to take on more sophisticated work. Coreq: CHEM 2031. **Semester Hours:** 2 to 2

CHEM 2091 - Honors General Chemistry II Lecture

Course will omit detailed discussion of stoichiometry and basic atomic structure. Topics include gas laws, thermochemistry, the quantum mechanical model of the atom, periodic properties, bonding and molecular geometry and intermolecular forces. Prepares students to take upper division chemistry courses. Note: Admission into specific CU Denver program or consent of the instructor is required. Prereq: CHEM 2081, 2031 and permission of the instructor. Coreq: CHEM 2098. **Semester Hours:** 3 to 3

CHEM 2098 - Honors General Chemistry II Laboratory

Students perform laboratory experiments on topics covered in General Chemistry II (CHEM 2061) or the companion Honors General Chemistry II course. Students gain experience in observing, recording, and interpreting physical and chemical phenomena. Honors General Chemistry II Laboratory is distinguished from the regular General Chemistry Laboratory by smaller sections, and greater access to specialized techniques, open ended experiments, and instrumentation. Students use the laboratory skills they developed in Honors General Chemistry I Laboratory to work independently with a special emphasis on recording, interpreting, and expressing data, chemical safety, the scientific literature, innovation in the laboratory, and presentation of scientific information in oral and poster formats. Prereq: CHEM 2038 or CHEM 2088. Coreq: CHEM 2061. **Semester Hours:** 2 to 2

CHEM 2300 - Nutritional Chemistry

Introduces nutrition intended primarily for majors in nursing, physical therapy, physical education. Topics include structure and metabolism of carbohydrates, lipids and proteins, functions of vitamins and minerals and food constituents. Prereq: CHEM 1000, 1474 or high school chemistry. **Semester Hours:** 3 to 3

CHEM 2840 - Independent Study: CHEM

Semester Hours: 1 to 3

CHEM 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 1 to 3

CHEM 3011 - Inorganic Chemistry

The fundamentals of inorganic chemistry, including: atomic, molecular and crystal structures; the energetics of reactions, acid-base interactions; and the chemistry of main group and transition metal elements, including coordination and organometallic chemistry. Prereq or Coreq: CHEM 3421 or 3491. **Semester Hours:** 3 to 3

CHEM 3018 - Inorganic Chemistry Laboratory

Combines theoretical concepts with hands-on laboratory experience and introduces students to modern inorganic chemistry. Experiments cover both main group and transition metal chemistry with an emphasis on synthesis, characterization, and application of inorganic compounds. Prereq or Coreq: CHEM 3011. **Semester Hours:** 2 to 2

CHEM 3111 - Analytical Chemistry

Topics include sampling, volumetric analyses, instrumental analyses and statistical treatment of data. Note: Lecture course for chemistry, biology, medical technology and environmental students. Prereq: CHEM 2061. **Semester Hours:** 3 to 3 **When Offered:** FALL

CHEM 3118 - Analytical Chemistry Laboratory

Students gain experience with technique of sampling and analysis, including an introduction to instrumental methods. Note: Laboratory course to be taken concurrently with CHEM 3111. Prereq: CHEM 2068; Coreq: CHEM 3111. **Semester Hours:** 2 to 2 **When Offered:** FALL

CHEM 3411 - Organic Chemistry I

Lecture course designed to introduce the study of structure, reactions, properties, and mechanisms of organic molecules. Prereq: CHEM 2061. **Semester Hours:** 4 to 4

CHEM 3418 - Organic Chemistry Laboratory I

Laboratory course to augment concepts of CHEM 3411, illustrating the practical aspects of organic chemistry. Prereq: CHEM 3411 or 3481. **Semester Hours:** 1 to 1

CHEM 3421 - Organic Chemistry II

Lecture course designed to introduce the study of structure, reaction, properties and mechanisms of organic molecules. Note: Continuation of CHEM 3411. Prereq: CHEM 3411.

Semester Hours: 4 to 4

CHEM 3428 - Organic Chemistry Laboratory II

Laboratory course to augment concepts of CHEM 3421, illustrating the practical aspects of organic chemistry. Prereq: CHEM 3418; Prereq or Coreq: CHEM 3421 or CHEM 3491.

Semester Hours: 1 to 1

CHEM 3481 - Honors Organic Chemistry I

An accelerated introduction to fundamental structural, analytical, and mechanistic aspects of organic molecules and their reactions. Prereq: CHEM 2061 and CHEM 2068 (or equivalent), and approval of the instructor. **Semester Hours:** 4 to 4

CHEM 3488 - Honors Organic Chemistry Laboratory I

Honors laboratory class to accompany CHEM 3481. Students will learn the basic techniques of organic synthesis, purification and analysis while carrying out extended experiments.

Semester Hours: 2 to 2

CHEM 3491 - Honors Organic Chemistry II

Second semester organic chemistry. Theoretical concepts and practical aspects of organic structure, mechanism, synthesis and analysis. Note: Required for chemistry majors and open to all students. No joint credit with CHEM 3421. Prereq: CHEM 3411. Coreq: CHEM 3498.

Semester Hours: 4 to 4

CHEM 3498 - Honors Organic Chemistry Laboratory II

In small groups, students use the chemical literature to devise multi-step syntheses and determine reaction mechanisms for organic compounds. Note: Laboratory course required for chemistry majors. Open to non-majors on approval of the instructor. Prereq or Coreq: CHEM 3491. **Semester Hours:** 2 to 2

CHEM 3510 - Physical Chemistry: Biological Applications.

Fall. An introduction to physical chemistry that examines the principles of thermodynamics, equilibrium solutions, and kinetics as they apply to biological systems. Calculus required to learn the principles is presented in the course. Prereq: Chem 2061, Math1120, and Phys 2020.

Semester Hours: 4 to 4

CHEM 3810 - Biochemistry

Introduces the principles of biochemistry for science and health science-oriented majors. Designed to cover the important aspects of modern biochemistry. Prereq: BIOL 2061 and CHEM 3411. **Semester Hours:** 4 to 4

CHEM 3840 - Independent Study

Semester Hours: 1 to 3

CHEM 3939 - Internship

Designed experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Junior standing and at least a 2.75 GPA. **Semester Hours:** 1 to 3

CHEM 4121 - Instrumental Analysis

Surveys instrumental methods of analysis. Emphasis on spectrophotometry, electrochemistry, chromatography and radiochemical techniques. Prereq: CHEM 3111, 3421 or 3491, and PHYS 2331; Coreq for Chemistry majors: CHEM 4128. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

CHEM 4128 - Instrumental Analysis Laboratory

Laboratory practice to accompany CHEM 4121. One hour of discussion and three hours of laboratory, with an emphasis on writing laboratory reports. Note: Required of chemistry majors and open to other students in CHEM 4121. Coreq: CHEM 4121. **Semester Hours:** 2 to 2 **When Offered:** *SPRING*

CHEM 4511 - Physical Chemistry I

Includes study of the laws of thermodynamics, thermochemistry, chemical equilibria, solutions and statistical mechanics. Prereq: PHYS 2331; Coreq: MATH 3511. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

CHEM 4518 - Physical Chemistry Laboratory I

Instruction in the experimental techniques of physical chemistry with emphasis on the properties of gases, thermodynamics and chemical equilibrium. Prereq: CHEM 3118; Coreq: CHEM 4511. **Semester Hours:** 2 to 2

CHEM 4521 - Physical Chemistry II

Continuation of CHEM 4511, with emphasis on chemical kinetics, quantum mechanics, molecular structure and spectroscopy. Prereq: CHEM 4511 and MATH 3511. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

CHEM 4538 - Physical Chemistry II Laboratory

Instruction in the experimental techniques of physical chemistry with emphasis on quantum chemistry, spectroscopy and chemical kinetics. Prereq: CHEM 4518; Coreq: CHEM 4521. **Semester Hours:** 2 to 2

CHEM 4700 - Environmental Chemistry

A discussion of the sources, reactions, transport, effects, and fates of chemical species in the water, soil, and air environments. Prereq: CHEM 3111 or 3411. Cross-listed with CHEM 5700. **Semester Hours:** 3 to 3

CHEM 4810 - General Biochemistry I

Topics include structure, conformation, and properties of proteins; enzymes, mechanisms and kinetics; carbohydrates, lipids and membranes, and energetics. Prereq: CHEM 3421 or 3491. Cross-listed with CHEM 5810. **Semester Hours:** 3 to 3

CHEM 4820 - General Biochemistry II

Topics include biosynthesis and metabolism of carbohydrates, lipids and amino acids, information processing. Note: continuation of CHEM 4810. Prereq: CHEM 4810. Cross-listed with CHEM 5820. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

CHEM 4828 - Biochemistry Lab

Focuses on modern laboratory techniques for biochemical research, with an emphasis on methods for protein isolation, purification, and identification. Students perform experiments involving (but not limited to) chromatography, electrophoresis, spectrophotometry, and protein activity assays. Prereq: CHEM 3810 or 4810. **Semester Hours:** 2 to 2

CHEM 4835 - Biochemistry of Cancer

Explores the biochemical aspects of cancer causation and treatment. Topics include DNA and protein damage, oncogenes and tumor suppressors, the chemistry of chemotherapeutic agents, and the mechanisms of resistance to anticancer drugs. Prereq: CHEM 3810, 4810, or 5810. Cross-listed with CHEM 5835. **Semester Hours:** 3 to 3

CHEM 4840 - Independent Study: Chem

Prereq: Permission of instructor required. **Semester Hours:** 1 to 6

CHEM 5010 - Advanced Inorganic Chemistry

Covers the fundamental principles of inorganic chemistry. Topics include atomic structure and periodicity, molecular symmetry, bonding, structural chemistry, main-group chemistry, coordination chemistry, and organometallic chemistry. Prereq: CHEM 3011 and CHEM 4521 or equivalent, or permission of instructor. **Semester Hours:** 4 to 4

CHEM 5071 - RM-MSMSP: Atoms and Properties of Matter

Systematic study of the structure of the atom, how atoms interact to form bonds, how matter behaves at the molecular level, the periodic table, and the macroscopic properties of matter. Concepts are linked to other scientific, mathematical, societal, and pedagogical domains. This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: Permission of project director. **Semester Hours:** 4 to 4

CHEM 5072 - RM-MSMSP: Interactions of Elements and Compounds

Systematic study of solubility (physical and chemical properties of solutions and the chemistry of acids, bases, pH, and buffer solutions), oxidation or reduction reactions, reaction energetics (thermodynamics and kinetics), and applications of chemistry to environmental, biochemical, and nutritional problems. Concepts are linked to other scientific, mathematical, societal, and pedagogical domains. This course is not applicable toward any degree in the College of Liberal

Arts and Sciences. Prereq: CHEM 5071 (or equivalent) and permission of project director.

Semester Hours: 4 to 4

CHEM 5073 - RM-MSMSP Research Experience for Teachers - Chemistry Cohort

The Research Experience for Teachers (RET) program will be a five-week research exploration in which twelve RM-MSMSP teachers will raise their level of relevant scientific understanding by engaging in a "hands on" workshop, transforming what they have learned into new curricular materials that will improve the scientific abilities of their students and hopefully stimulate them to consider a STEM career. Note: Credit may not apply toward any CLAS degree. **Semester**

Hours: 1 to 6

CHEM 5110 - Advanced Analytical Chemistry

Explores the fundamental principles of analytical chemistry. Topics will focus on meteorology (the science of making measurements), measurements based on energy transfer (e.g. spectroscopic analysis), and measurements based on mass transfer (e.g. chemical separations and electrochemistry). Prereq: Undergraduate instrumental analysis or equivalent. **Semester**

Hours: 4 to 4

CHEM 5130 - Surface Analytical Techniques

Surveys widely used techniques for surface analysis, including thermal desorption, mass spectrometry, X-ray photoelectron spectroscopy, and surface electrochemistry. Applications to catalyst and organic or biological surfaces are included. Prereq: CHEM 4121 or equivalent.

Semester Hours: 3 to 3

CHEM 5250 - Chemometrics: Data Analysis

Provides chemists and environmental scientists with the basic statistical skills for effective data analysis and experimental design. Minimal theoretical detail is provided; practical applications and graphical techniques are emphasized. **Semester Hours:** 3 to 3

CHEM 5310 - Advanced Organic Chemistry

An exploration of structure, bonding and reactivity in organic modules that includes extensive analysis of the chemical literature, culminating in written and seminar presentations of individual projects. Prereq: CHEM 3421 and 4521. **Semester Hours:** 4 to 4

CHEM 5510 - Computational Chemistry

Classical and ab initio molecular dynamics are covered from theory to application. Students have access to high-performance computational resources and cover current topics in the field. Prereq: CHEM 4521 or permission of instructor. **Semester Hours:** 3 to 3

CHEM 5520 - Molecular Structure and Spectra

Applies quantum mechanics to the understanding of molecular structure and spectroscopy.

Prereq: CHEM 4521. **Semester Hours:** 3 to 3

CHEM 5530 - Advanced Physical Chemistry

Explores fundamental properties of molecules (bond length and strength, the potential energy surface, reaction rates, etc.) and examines how these properties are measured, using original literature as the primary source, and culminating in written and seminar presentations of individual projects. Prereq: CHEM 4511, 4521 and 4538 or equivalent. **Semester Hours:** 4 to 4

CHEM 5550 - Applications of Group Theory in Chemistry

Introduces the basic principles of the group theoretical method as well as its applications in organic, inorganic, and physical chemistry. Covers Mo's for main-group and transition metal compounds, ligand field theory, molecular vibrations, and electron absorption spectroscopy. Prereq: CHEM 4521 or permission of instructor. **Semester Hours:** 3 to 3

CHEM 5600 - Topics in Chemistry

Note: Topics vary from year to year. Prereq: Graduate standing. **Semester Hours:** 1 to 6

CHEM 5700 - Environmental Chemistry

A discussion of the sources, reactions, transport, effects, and fates of chemical species in the water, soil and air environments. Prereq: CHEM 3111, 3411, and graduate standing. Cross-listed with CHEM 4700. **Semester Hours:** 3 to 3

CHEM 5710 - Air Pollution Chemistry

Chemical processes occurring in the atmosphere are discussed. Includes application to air pollution problems, including urban air pollution, air quality standards, non-urban air pollution, acid deposition, and stratospheric pollution. Prereq: CHEM 4521 or 4700. **Semester Hours:** 3 to 3

CHEM 5720 - Atmospheric Sampling and Analysis

Fundamentals of environmental sampling specifically applied to the atmosphere are discussed. Includes a variety of techniques for the measurement of monitoring gaseous, semi-volatile and particulate air pollutants, techniques for the measurement of criteria pollutants, chemical and physical measurements of particulate and air toxins. Prereq: CHEM 4700 or CHEM 5710 or permission of instructor. **Semester Hours:** 3 to 3

CHEM 5810 - General Biochemistry I

Topics include structure, conformation, and properties of proteins; enzymes, mechanisms and kinetics; carbohydrates, lipids and membranes, and energetics. Prereq: CHEM 3421 or 3491. Cross-listed with CHEM 4810. **Semester Hours:** 3 to 3

CHEM 5820 - General Biochemistry II

Topics include biosynthesis and metabolism of carbohydrates, lipids and amino acids, information processing. Note: Continuation of CHEM 5810. Prereq: CHEM 5810. Cross-listed with CHEM 4820. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

CHEM 5835 - Biochemistry of Cancer

Explores the biochemical aspects of cancer causation and treatment. Topics include DNA and protein damage, oncogenes and tumor suppressors, the chemistry of chemotherapeutic agents, and the mechanisms of resistance to anticancer drugs. Prereq: CHEM 3810, 4810, or 5810. Cross-listed with CHEM 4835. **Semester Hours:** 3 to 3

CHEM 5840 - Independent Study

Semester Hours: 1 to 3

CHEM 5939 - Internship

Semester Hours: 1 to 6

CHEM 5950 - Master's Thesis

Semester Hours: 1 to 8

CHEM 6000 - Chemistry Seminar

Faculty and student presentations of CU-Denver research projects and other current chemistry topics. Note: All chemistry students are encouraged to attend, but credit is given only to those who present seminars. Prereq: Graduate standing. **Semester Hours:** 1 to 3

CHEM 6001 - Master's Research Seminar

Students present a formal seminar to the department describing their master's research work. Note: Required for all students completing a thesis-based master's degree; optional for those completing master's projects. Prereq: Participation in master's thesis or project research; CHEM 6000. **Semester Hours:** 1 to 1

CHEM 6002 - Chemistry Seminar I

The art of listening to and giving a chemistry seminar. Introduces the chemical literature, the pedagogical techniques of seminar giving, and the critical thinking skills required to understand a technical presentation. Note: Seminar presentations by faculty, outside speakers, and advanced graduate students are analyzed by the students participating in the course. Prereq: Graduate standing. **Semester Hours:** 1 to 1

CHEM 6003 - Chemistry Seminar II

Students prepare and give a chemical seminar based on a literature paper. Note: Seminar presentations by students and outside speakers are analyzed by students in the course. Prereq: Graduate standing. **Semester Hours:** 1 to 1

CHEM 6840 - Independent Study: Chem

Semester Hours: 1 to 6

CHEM 6950 - Master's Thesis

Semester Hours: 1 to 6

CHEM 6960 - Master's Report

Semester Hours: 1 to 6

Chinese Courses (CHIN)

CHIN 1000 - China and the Chinese

A multidisciplinary introduction to Chinese society both past and present. Prehistory, birth of imperial China, literature, philosophy, religion, nationalism, revolution, modernization, contemporary life, social structure, gender, food, family life, population policy, ethnicity, popular culture, economics and politics. Note: This course is taught in English. **Semester Hours: 3 to 3**

CHIN 1010 - Beginning Chinese I

A basic introduction to Chinese language and culture. Students study pronunciation, vocabulary, grammar and simple writing techniques. Note: Students may not enroll in any lower division (1000/2000) language skills course in which their level of proficiency exceeds that of the course. Students placing into a course through any means other than following the regular sequence must consult with an appropriate faculty member of the Dept. of Modern Languages prior to enrollment. No previous study of Chinese is required. **Semester Hours: 5 to 5**

CHIN 1020 - Beginning Chinese II

(Continuation of CHIN 1010.) Further practice of pronunciation, study of vocabulary, grammar, and simple writing techniques. Note: Students may not enroll in any lower division (1000/2000) language skills course in which their level of proficiency exceeds that of the course. Students placing into a course through any means other than following the regular sequence must consult with an appropriate faculty member of the Dept. of Modern Languages prior to enrollment. Prereq: CHIN 1010. **Semester Hours: 5 to 5**

CHIN 1071 - Mandarin Chinese for the Professions

Provides students with language skills and cultural knowledge in the context of conducting business with Chinese. Students develop elementary language skills for communication, cultural awareness and business etiquette via structured thematic units with business scenarios and simulations. Note: Chinese 1071 cannot be taken to fulfill language requirements; nor can it be used to substitute for Chinese 1010. **Semester Hours: 3 to 3**

CHIN 1111 - Freshman Seminar

Semester Hours: 1 to 3

CHIN 2110 - Second Year Chinese I

Continuing development of listening, speaking, reading, and writing skills in practical Chinese, with grammar review and introduction of the Chinese dictionary. In addition to contemporary Chinese, there is some emphasis on Chinese classical materials, such as proverbs. Note: Students may not enroll in any lower division (1000/2000) language skills course in which their level of proficiency exceeds that of the course. Students placing into a course through any means other than following the regular sequence must consult with an appropriate faculty member of the Dept. of Modern Languages prior to enrollment. Prereq: CHIN 1020. **Semester Hours: 3 to 3**

CHIN 2120 - Second Year Chinese II

(Continuation of CHIN 2110.) Satisfies the fourth semester language requirement at most graduate schools. Note: Students may not enroll in any lower division (1000/2000) language skills course in which their level of proficiency exceeds that of the course. Students placing into a course through any means other than following the regular sequence must consult with an appropriate faculty member of the Dept. of Modern Languages prior to enrollment. Prereq: CHIN 2110. **Semester Hours:** 3 to 3

CHIN 2840 - Independent Study

Semester Hours: 1 to 3

CHIN 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 1 to 3

CHIN 2970 - Contemporary Chinese Cinema

Introduces students to Chinese cinema, one of the most powerful and often controversial modes of representing society, culture, history and politics in China. Note: Taught in English. All films have English subtitles. No previous study of Chinese language or culture is required. **Semester Hours:** 3 to 3

CHIN 3200 - Contemporary Chinese Society and Culture

Provides students with an overview of the systems in modern China (such as educational, political and economical), its family and interpersonal constructs and the elements of modern China found in popular cultures. It also exposes students to rudimentary and practical use of the Chinese language. Note: This course is taught in English. **Semester Hours:** 3 to 3

CHIN 3300 - Special Topics on Chinese Film

Studies the cultural, social and historical conditions that have shaped Chinese cinema. May focus on one Chinese speaking country or more than one (including but not limited to China, Taiwan and Hong Kong). May focus on a particular period (pre-Cultural revolution, for example) or a particular theme (urban cinema or martial arts films, for example). **Semester Hours:** 3 to 3

CHIN 3840 - Independent Study: CHIN

Semester Hours: 1 to 3

CHIN 3995 - Travel Study

A travel study abroad course to one or more Chinese speaking countries. Topics of the course will vary depending on the instructor, sites visited and focus of the course. Topics may include intensive language training, film studies, contemporary issues, literary and cultural studies, etc. **Semester Hours:** 3 to 3

CHIN 5100 - Methods of Teaching Chinese Immersion

Provides students with an overview of teaching in an immersion environment in Mandarin Chinese. Topics include: immersion models, language/contents and culture, first and second language acquisition, curriculum design, national and state curriculum standards, program management and program assessment. Note: Taught in English. This course is not applicable toward any degree in the College of Liberal Arts and Sciences. **Semester Hours:** 3 to 3

CLAS Interdepartmental Courses (CLAS)

CLAS 2939 - Internship

Semester Hours: 1 to 3

CLAS 3939 - Internship

Semester Hours: 1 to 6

CLAS 4840 - Independent Study: CLAS

Semester Hours: 1 to 3

Culturally & Linguistically Diverse Education Courses (CLDE)

CLDE 4810 - Orientation to Bilingual Education

This academy provides a basic introduction to bilingual education programs. The content consists of introductory material regarding the legal and historical foundations of bilingual education, bilingual and ESL program model overviews, materials to address **Semester Hours:** 1 to 1

CLDE 4820 - Language Development and Acquisition

This academy provides a basic introduction to bilingual and English as a second language education programs. The content consists of introductory material regarding second language acquisition theories and stages, factors that influence learning a second **Semester Hours:** 1 to 5

CLDE 4825 - Techniques in Teaching English as a Second Language

Develops skills in using a variety of classroom techniques to teach English as a second language. The course is a practical presentation of ESL methods and techniques. Examples of classroom practices are taken from the full educational spectrum, from publ **Semester Hours:** 3 to 3

CLDE 4830 - Instructional Delivery Methods for Second Language Learners

This academy provides more in-depth information on different instructional methods and how to apply them in working with English language learners. It looks into practical strategies for modifying lessons using sheltered instruction in order to accommodat **Semester Hours:** 1 to 1

CLDE 4910 - CO-TOP Practicum

The CO-TOP Paraeducator Certification requires 2 credit hours of field experience, each credit hour representing at least 90 hours in the field. Field experiences should balance out a person's previous experience to create a more marketable set of skills **Semester Hours:** 2 to 2

CLDE 5010 - Foundations of Language, Literacy and Culture

Designed for veteran and novice teachers to gain an understanding of the broad fields of literacy and language education. Participants examine key educational philosophies based on the writings of important scholars in the field, on topics such as the pol **Semester Hours:** 3 to 3

CLDE 5030 - Language & Literacy Acquisition Div Lrn

This course investigates the relationship between language and literacy acquisition. In the context of first and second language acquisition across the lifespan, the course focuses on bilingual and second language development, and on the acquisition of l **Semester Hours:** 3 to 3

CLDE 5035 - Language and Literacy: Acquisition, Processes, and Cognition, Part II

This course is the second of a two-part sequence in language and literacy. Students examine research and develop practices relating to language and literacy acquisition, in particular by linguistically diverse learners in community and classroom contexts. **Semester Hours:** 3 to 3

CLDE 5050 - Assessment & Advocacy for Diverse Learners

The purpose of this course is to prepare teachers to gather and use assessment results within a strengths-based framework to advocate for appropriate programming, placement and instruction, and ongoing progress monitoring for students who are culturally a **Semester Hours: 3 to 3**

CLDE 5070 - Linguistic Analysis of English: Implications for Teaching

A descriptive linguistic approach to English grammar with a functionalist view of language and discourse processing. The course examines the historical evolution of English from its origins and the impact this has had on its grammar and syntax. A sociolin **Semester Hours: 3 to 3**

CLDE 5140 - Multicultural Education

Develops an understanding of the pluralistic nature of U.S. society and the role of the school within this social context. Examines the legal and cultural history of language education in Colorado and the U.S. as well as the impact of changing demographi **Semester Hours: 3 to 3**

CLDE 5150 - Culture of the Classroom

Provides a classroom-focused examination on linguistic and cultural diversity. The legal history of language and literacy education in the U.S., Colorado and local school districts is studied with a focus on implications for instructional practice. Partic **Semester Hours: 3 to 3**

CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdn

This course includes an overview of U.S. and Colorado history and legislation related to bilingual education and second language education, as well as current and historical immigration issues as they impact students, families, communities, schools, and e **Semester Hours: 3 to 3**

CLDE 5170 - Race, Class and Culture in Public Schools

This course will focus on understanding culture and diversity, recognizing the role of inherited power and privilege in both individual and institutional interactions and developing a philosophy of social justice and equity in education. **Semester Hours: 3 to 3**

CLDE 5180 - Working with Communities and Families

This course will focus on the importance of understanding and connecting with the community and families of the students in a school, by exploring the socio-cultural histories of students and communities. We will develop practical strategies and activitie **Semester Hours: 3 to 3**

CLDE 5190 - Culturally Responsive Pedagogy and Practices

This course focuses on developing practical tools for culturally responsive, inclusive instructional strategies, classroom management and curriculum and lesson planning. Prereq: LALC 5170 and 5180. **Semester Hours: 3 to 3**

CLDE 5430 - Gender as Culture

Examines ways some implicit conceptual and value systems regarding gender are manifested in schools, homes and work places. Provides students with knowledge and insight from interdisciplinary scholarship of gender in society. **Semester Hours:** 3 to 3

CLDE 5800 - Sociolinguistics: Language Variation and Implications for Teaching

Provides an introduction to the field of educational sociolinguistics and research of classroom discourse. Students are introduced to the collection and analysis of oral and written language in educational contexts. Basic concepts and key issues regarding **Semester Hours:** 3 to 3

CLDE 5820 - Techniques in Teaching English as a Second Language

Develops skills in using a variety of classroom techniques to teach English as a second language. The course is a practical presentation of ESL methods and techniques. Examples of classroom practices are taken from the full educational spectrum, from publ **Semester Hours:** 3 to 3

CLDE 5821 - English Phonology for TESOL

Provides ESL teachers with a basic understanding of the English sound system and the implications for teaching. Designed for teachers with a limited background in phonetics and phonology. An understanding of some of the basic concepts in linguistics is ad **Semester Hours:** 3 to 3

CLDE 5822 - Internet for ESL Teachers

Provides teachers with the opportunity to explore Internet resources for instructional use and professional development. While learning how to access, navigate, and write for the Internet, class participants examine and devise instructional uses of the In **Semester Hours:** 3 to 3

CLDE 5825 - Methods and Materials of Language Teaching

Provides an in-depth study of curriculum options for learners of English as a second language. Participants examine and apply strategies and materials for developing linguistic and academic capabilities of language learners. **Semester Hours:** 3 to 3

CLDE 5826 - Language Teaching Lab

Provides participants with a classroom-based examination of language teaching based on theoretical tenets of language acquisition and language teaching methods. Students develop lessons around particular language points and work with the professor and pee **Semester Hours:** 3 to 3

CLDE 5830 - Workshop in Multicultural Education

Provides students with the experiences in multicultural methodology training. How to utilize community members, para-professionals, and peers to facilitate learning in a multicultural environment. **Semester Hours:** 3 to 3

CLDE 5835 - Special Topics: Literacy and Language

Specific topics vary but will include the exploration of literacy development and instruction in particular populations or with specific focuses. **Semester Hours:** 0.5 to 3

CLDE 5840 - Independent Study: CLDE

Semester Hours: 1 to 4

CLDE 5920 - Readings in Multicultural Education

Provides students with an opportunity to examine the current literature as it relates to trends in contemporary issues in the area of multicultural education. **Semester Hours:** 3 to 3

CLDE 6090 - Research Seminar

An advanced course which focuses on specific issues in language, language acquisition and language teaching. **Semester Hours:** 3 to 3

CLDE 6713 - Introduction to Language Policy

The legal, ideological, and historic foundations of language policies are examined. Also examined are connections with related topics such as language rights, language and power, and issues from the sociology of language, such as language loyalty. **Semester Hours:** 3 to 3

CLDE 6840 - Independent Study: CLDE

Semester Hours: 1 to 4

CLDE 6912 - Seminar and Practicum in Literacy and Language, ESL and Bilingual Education

Provides opportunities for advanced students in the M.A. program to apply concepts acquired in course work and other educational experiences to specific situations. Students will work in schools, classrooms, administrative offices, or community centers (a **Semester Hours:** 3 to 3

CLDE 6950 - Master's Thesis

An advanced course focusing on Master's Thesis development and presentation. **Semester Hours:** 4 to 4

CLDE 7410 - Communication and Control in Systems Change

Examines educational settings -- classrooms, schools, school districts, corporate and clinical settings, church basements and community centers -- as systems, and explores strategies for change. Participants draw on interdisciplinary perspectives of indiv **Semester Hours:** 3 to 3

Chinese Studies Courses (CNST)

CNST 4000 - Senior Seminar in Chinese Studies

Capstone course in the Chinese studies program in which students design and carry out independent research projects on topics of their choice. Prereq: CNST 1000 and 15 hours in Chinese studies. **Semester Hours:** 3 to 3

Communication Courses (COMM)

COMM 1001 - Presentational Speaking

Theory and practice of presentational speaking in a variety of contexts to accomplish goals of asserting individuality, building community, securing adherence, discovering knowledge and belief, and offering perspectives. **Semester Hours:** 3 to 3

COMM 1011 - Fundamentals of Communication

Studies communication theory and application. Topics include communication models, interpersonal communication and the concept of self, nonverbal communication, message preparation and analysis, and decision making. **Semester Hours:** 3 to 3

COMM 1021 - Introduction to Media Studies

Explores the role of contemporary media in shaping our sense of ourselves and our world. The class surveys a broad array of critical approaches to understanding media. **Semester Hours:** 3 to 3

COMM 1041 - Interpersonal Communication

Focuses on the theory and development of interpersonal relationships. Issues covered include the communication process, self versus others, self-esteem, person perception, the attraction process, nonverbal communication, relationship development and family communication.

Semester Hours: 3 to 3

COMM 1051 - Topics in Communication

Special classes for faculty-directed experiences examining communication issues and problems not generally covered in the curriculum. **Semester Hours:** 1 to 3

COMM 1111 - Freshman Seminar

Semester Hours: 1 to 3

COMM 2000 - Persuasion

Examines influence and communication at individual, group, organizational and societal levels. A theoretical and applied analysis of persuasion, including examination of public opinion, individual attitudes, beliefs, values, sources, credibility, ethics, and certain message and audience variables. **Semester Hours:** 3 to 3

COMM 2020 - Communication, Citizenship, and Social Justice

Introduction to debates about, and means of practicing citizenship and social justice in America. Issues may include democratic participation, electoral politics, community activism, inequality, and environmental degradation. **Semester Hours:** 3 to 3

COMM 2045 - Workplace Communication

Focuses on theories and practices of leadership, teambuilding, relationship development and other workplace communication skills. The goal of the course is to help students develop

advanced communication strategies for managing workplace challenges. **Semester Hours:** 2 to 3

COMM 2050 - Business and Professional Speaking

Development of communication skills often used in business and professional settings, with an emphasis on various kinds of presentations. **Semester Hours:** 3 to 3

COMM 2140 - Argumentation

Examines classical through contemporary theories, with special attention to types of propositions, burden of proof, analysis of issues, evidence, reasoning, fallacies, case construction, refutation and ethics. **Semester Hours:** 3 to 3

COMM 2800 - Technology for Workplace Communication

Provides students with skills necessary to apply computer technologies that are currently used in the workplace. Topics include the Internet and software applications in advanced work processing, presentations, spreadsheets and databases. **Semester Hours:** 3 to 3

COMM 2939 - Internship

Semester Hours: 1 to 3

COMM 3120 - Technical Communication

Develops students' abilities to prepare and communicate information in diverse media, including written, spoken, graphic and electronic. Technical communication focuses on communication used on the job as opposed to communication in academic settings. Students prepare communications in response to real-world cases and demonstrate the integration of communication through these different media. Prereq: ENGL 1020. **Semester Hours:** 3 to 3

COMM 3271 - Communication and Diversity

Explores the complexities of communication across diverse identities such as race, ethnicity, and gender. Course attempts to seek solutions via sharing meaning and discovering common ground. **Semester Hours:** 3 to 3

COMM 3275 - Family Communication

Explores family communication processes in traditional and nontraditional families through examination of theories and research on the family. Topics include conflict, family secrets, decision-making, and practical guidelines for improved communication in families. **Semester Hours:** 3 to 3

COMM 3620 - Television Production

Introduces basic television production principles, practices, techniques and equipment. **Semester Hours:** 3 to 3

COMM 3650 - Media and Society

Approaches communication from a historical perspective, examining how major revolutions in communication technologies have influenced and impacted society over time. **Semester Hours:** 3 to 3

COMM 3680 - Mass Communication Skills

Instruction in writing and editing skills associated with the production of print, radio, television and film. **Semester Hours:** 3 to 3

COMM 3840 - Independent Study

Semester Hours: 1 to 3

COMM 3939 - Internship

Applies communication or technical communication concepts and skills in supervised employment situations. Prereq: Junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

COMM 4011 - Research Methods: Quantitative

Examines quantitative techniques used by researchers in communication, including laboratory research, field and survey research, content analysis, and interaction analysis. Objective of the course is to give students enough background to read critically in the social sciences. Cross-listed with COMM 5011. **Semester Hours:** 3 to 3

COMM 4015 - Communication and Civility

Examines the central role of communication in the creation of a civil and humane society. The definition, understanding, and practices of civility in public discourse and in professional, social, and personal relationships are explored. Film, literature, music, and other texts are utilized to illustrate key concepts and serve as catalysts for discussion. **Semester Hours:** 3 to 3

COMM 4020 - Feminist Perspectives on Communication

Introduces the communication theories of major feminist theorists such as Mary Daly, Bell Hooks, and Sonia Johnson, with a focus on how their theories challenge and transform current understandings of communication. Cross-listed with COMM 5020. **Semester Hours:** 3 to 3

COMM 4021 - Perspectives on Rhetoric

Introduces major theories of rhetoric from classical through contemporary times, including the theories of Aristotle, Cicero, I. A. Richards, Kenneth Burke, Michel Foucault and Jurgen Habermas. Cross-listed with COMM 5021. **Semester Hours:** 3 to 3

COMM 4022 - Critical Analysis of Communication

Surveys research methods used to analyze messages from rhetorical and critical perspectives. Cross-listed with COMM 5022. **Semester Hours:** 3 to 3

COMM 4031 - Perspectives on Communication

Overview of major theories and literature in the communication field that serve as the foundation for the study of communication. **Semester Hours:** 3 to 3

COMM 4040 - Communication, Prisons, and Social Justice

Examines the U.S. prison-industrial complex and enables students to envision ways of reducing crime and improving democracy by engaging in community service. Note: This course fulfills the

communication department's exit class requirement. Prereq: COMM 2020, or permission of instructor. Cross-listed with COMM 5040. **Semester Hours:** 3 to 3

COMM 4041 - Theories and Methods in Interpersonal Communication

Examines theories and methods used in interpersonal communication and the role of communication in the development, maintenance, and deterioration of personal relationships. Attention is also given to major types of personal relationships, such as marriage and friendship, and how communication reflects and determines the dynamics of those relationships. Cross-listed with COMM 5041. **Semester Hours:** 3 to 3

COMM 4045 - Female-Male Friendships

Explores friendships between women and men across the life cycle and the role of communication in those friendships. Topics include how such friendships impact self-concepts, advantages of female-male friendships, and barriers to female-male friendships. Cross-listed with COMM 5045. **Semester Hours:** 3 to 3

COMM 4111 - Theories of Leadership

Examines research and applications related to the major theories of leadership. Emphasizes a critical reading of research confirming or denying various theories, and stresses the historical development of theories of leadership behavior and characteristics. Cross-listed with COMM 5111. **Semester Hours:** 3 to 3

COMM 4120 - Writing Technical Reports

Studies various aspects of technical reports, including the theoretical applications behind making reports persuasive. Topics include informal and formal reports, progress reports, feasibility reports, empirical reports and recommendation reports. Prereq: COMM 3120. Cross-listed with COMM 5120. **Semester Hours:** 3 to 3

COMM 4130 - User Interface Design and Analysis

Introduces graphical user interface design through analysis of empirical studies and hands-on application of human-computer interaction principles. Prereq: COMM 3120. Cross-listed with COMM 5130. **Semester Hours:** 3 to 3

COMM 4151 - Group Communication

Analysis of the impact of small groups on individual behavior in social and task settings. Focuses on the dynamics of small groups, including leadership, roles, norms, goals and cohesion. **Semester Hours:** 3 to 3

COMM 4210 - Communication and Discourse Analysis

Examines the structural and functional factors affecting the formation, comprehension, and retention of speech. Topics include language norms, speech acts, implicature and meaning, and the analysis of conversations. Cross-listed with COMM 5210. **Semester Hours:** 3 to 3

COMM 4212 - Software Documentation

Covers all aspects of software documentation, including project management, audience/use analysis, document design, organization, writing and interviewing techniques, editing, production, and diagnostic and usability testing. Prereq: Previous technical writing course, industry experience, or permission of instructor. Cross-listed with COMM 5212. **Semester Hours:** 3 to 3

COMM 4215 - Ethics in Communication

Designed to help students identify and address the daily ethical challenges that occur in private, social, and professional contexts. Focus is on recognizing, analyzing, and resolving real-world ethical dilemmas using diverse approaches to ethical decision making. Cross-listed with COMM 5215. **Semester Hours:** 3 to 3

COMM 4220 - Human Information Processing

Considers the formation of attitude, mental set, and perception as a response to discourse organization. Examines several methods to analyze human responses to linguistic, graphic, and mathematical/statistical representations. **Semester Hours:** 3 to 3

COMM 4221 - Research Methods: Qualitative

Applies qualitative research methods to human communication practices, including the processes of designing qualitative studies, collecting data, analyzing and interpreting data, and reporting results. Cross-listed with COMM 5221. **Semester Hours:** 3 to 3

COMM 4222 - Professional Communication

Provides strategies for analyzing workplace situations, constructing clear and persuasive arguments and narratives to bring about positive change in organizations, and assessing the effectiveness of communication. Prereq: COMM 3120, industry experience or permission of instructor. Cross-listed with COMM 5222. **Semester Hours:** 3 to 3

COMM 4230 - Nonverbal Communication

Studies nonverbal behaviors that accompany or replace verbal communication, including macrospace, proxemics, kinesics, facial expression, eye contact, gestures, vocal characteristics, touch and personal adornment. Cross-listed with COMM 5230. **Semester Hours:** 3 to 3

COMM 4240 - Organizational Communication

Relationships among such communication factors as flow, media, channel, diversity, information delivery and organization functioning, morale, and productivity. Cross-listed with COMM 5240. **Semester Hours:** 3 to 3

COMM 4245 - Advanced Organizational Communication

Explores critical theoretical perspectives on communication in complex organizations, including issues and standpoints that have not been included in mainstream theory and research. Analyzes assumptions and pragmatic solutions associated with these theories. Cross-listed with COMM 5245. **Semester Hours:** 3 to 3

COMM 4255 - Negotiations and Bargaining

Designed to allow students to study theories and apply concepts that explain the influences of various forms of mediating, reducing, and/or resolving conflict among individuals, groups, organizations, nations and cultures. Cross-listed with COMM 5255. **Semester Hours:** 3 to 3

COMM 4260 - Communication and Conflict

Studies the influence of communication on intrapersonal, interpersonal, intragroup and intergroup conflict situations. **Semester Hours:** 3 to 3

COMM 4262 - Mediation

Explores theoretical and practical aspects of mediation in a variety of contexts ranging from divorce mediation to labor-management disputes. Cross-listed with COMM 5262. **Semester Hours:** 3 to 3

COMM 4265 - Gender and Communication

Explores the relationship between gender and communication, including how language treats women and men differently and verbal and nonverbal differences in women's and men's communication. Cross-listed with COMM 5265. **Semester Hours:** 3 to 3

COMM 4268 - Communication and Diversity in U.S. History

Explores issues of diversity and community in the construction of U.S. culture. Emphasis on legal and historical texts that codify or challenge majoritarian notions of difference and systems of social control. Cross-listed with COMM 5268. **Semester Hours:** 3 to 3

COMM 4270 - Intercultural Communication

Examines the philosophy, process, problems, and potentials unique to communication across cultural boundaries. **Semester Hours:** 3 to 3

COMM 4280 - Communication and Change

Examines the role of communication in change processes of various kinds, including social change and diffusion of innovations. **Semester Hours:** 3 to 3

COMM 4282 - Environmental Communication

Studies the communication processes involved in policies and practices affecting natural and human environments. Cross-listed with COMM 5282. **Semester Hours:** 3 to 3

COMM 4285 - Communication Processes in Technology Transfer

Surveys research addressing technology transfer processes. Students examine and critique models of technology transfers and the role of individuals, artifacts, and small teams in technology transfers. Cross-listed with COMM 5285. **Semester Hours:** 3 to 3

COMM 4290 - Web Design

Covers writing web pages in HTML, beginning Photoshop, style sheets, bitmapped animations, issues of usable layout, navigability, structure, typography, and color on the web. Projects

require students to develop static web sites. Prereq: COMM 3120 or permission of instructor. Cross-listed with COMM 5290. **Semester Hours:** 3 to 3

COMM 4300 - Multimedia Authoring

Analysis and evaluation of components of multimedia development and hands-on instruction featuring computer animation for advertising, training, and educational projects. Cross-listed with COMM 5300. **Semester Hours:** 3 to 3

COMM 4310 - Advanced Multimedia Authoring

Builds upon the fundamentals of multimedia authoring to develop advanced skills and theory. Students concentrate on developing advanced multimedia applications for education or industry. Prereq: COMM 4300, COMM 5300, previous multimedia experience, or permission of instructor. Cross-listed with COMM 5310. **Semester Hours:** 3 to 3

COMM 4320 - Content Management

Centers on large-scale documentation development using XML. Students learn "Single-source" documentation management, a cost-effective way to centralize information and extend it across different platforms and different audiences. Prereq: COMM 4290, COMM 5290 or permission of instructor. Cross-listed with COMM 5320. **Semester Hours:** 3 to 3

COMM 4330 - Dynamic Web Design Workshop

Introduces large-scale website development using XML and PHP. Students learn "Single-source" documentation management, a cost-effective way to centralize information and extend it across different platforms (wireless, browsers, help files) and audiences (specialists, managers, customers). Note: Independently taught modules may be taken separately or concurrently. Prereq: COMM 4290, 5290 or knowledge of HTML, CSS, and Photoshop. Cross-listed with COMM 5330. **Semester Hours:** 1 to 1

COMM 4340 - Advanced Web Design

Focuses on user interface design for the World Wide Web using Dynamic HTML, pre-designed CGI scripts downloadable from the Web, animated vector and bitmapped graphics. Note: continuation of COMM 4290, 5290. Prereq: COMM 4290, 5290 or knowledge of HTML, CSS, and Photoshop. Cross-listed with COMM 5340. **Semester Hours:** 3 to 3

COMM 4410 - Science Writing

An intensive practice in composing for diverse science publication genres and venues and practice in analyzing the ways consumers obtain and process information about scientific developments and controversies. Prereq: at least one writing or composition course at the 3000 level or above. Cross-listed with COMM 5410. **Semester Hours:** 3 to 3

COMM 4500 - Health Communication

Examines the role of communication in a wide range of health contexts. Topics include cultural constructions of health and illness, public health communication campaigns, client-provider interactions, telemedicine, community-based health programs and medical journalism. Cross-listed with COMM 5500. **Semester Hours:** 3 to 3

COMM 4510 - Usability Testing

Teaches students how to evaluate technical documentation testing needs, evaluate testing options for their feasibility and costs/benefits, design and carry out a usability testing plan, evaluate and write up test results for actual client documents and products. Prereq: COMM 3120 or permission of instructor. Cross-listed with COMM 5510. **Semester Hours:** 3 to 3

COMM 4550 - Rhetorics of Medicine & Health

This senior seminar/bridge class investigates persuasion in contemporary medicine/health care from clinical settings through mass media. Case studies explore contagion, health policy, the body, death, and biopower. The course requires extensive discussion of readings and an original research project. Cross-listed with COMM 5550. **Semester Hours:** 3 to 3

COMM 4600 - Media Theory

Surveys a broad array of critical and interpretive approaches to the study of media. Approaches include political economic, semiotic, rhetorical, psychoanalytic, feminist, and cultural. Cross-listed with COMM 5600. **Semester Hours:** 3 to 3

COMM 4601 - You Are What You Eat: Food as Communication

Because food provides a communication channel for much of who we are as individuals, as a community and as a society this course analyzes food as a form of communication. Cross-listed with COMM 5601. **Semester Hours:** 3 to 3

COMM 4605 - Rhetorical Theory for Technical Communication

Examines the principles of rhetorical theory and its relationship to technical communication. Students analyze traditional and contemporary rhetorical theories and apply them to contemporary issues of document design. Prereq: COMM 3120, COMM 3650, COMM 4021, COMM 4120, COMM 4200, COMM 4240, COMM 4215, or permission of instructor. Cross-listed with COMM 5605. **Semester Hours:** 3 to 3

COMM 4620 - Health Risk Communication

Acquaints students with contemporary theory, research, and practice in health risk communication. Prereq: COMM 3120, COMM 4011, COMM 4200, COMM 4500, or permission of instructor. Cross-listed with COMM 5620, HBSC 4620/5620, ENVS 5620, and PBHL 4620.

Semester Hours: 3 to 3

COMM 4621 - Visual Communication

Explores the social, cultural, and behavioral effects of visual images in a variety of contexts, including graffiti, film, advertising, art and architecture. Cross-listed with COMM 5621.

Semester Hours: 3 to 3

COMM 4635 - Principles of Public Relations

Introduces theory and practice in the field of public relations, including topics such as effects upon society, public opinion, target audiences, adaptation to the media, uses, laws and ethics. Cross-listed with COMM 5635. **Semester Hours:** 3 to 3

COMM 4640 - Advanced Public Relations

Examines key public relations practices in private, not-for-profit and public sectors. Strategic planning processes, research methods, evaluation, reports, and collateral development are addressed, with an emphasis on the intersection of theory and practice. Prereq: COMM 4635. Cross-listed with COMM 5640. **Semester Hours:** 3 to 3

COMM 4665 - Principles of Advertising

Provides a fundamental understanding and appreciation of advertising in today's global society, including consumer motivation, buying behavior, research, creative development and media planning. Cross-listed with COMM 5665. **Semester Hours:** 3 to 3

COMM 4680 - Mass Media Law And Policy

Covers issues of mass communication and the law and ethics, including issues of the First and Fourth Amendments, communication regulations, intellectual property, public access and obscenity. Cross-listed with COMM 5680. **Semester Hours:** 3 to 3

COMM 4681 - Communication Issues in Trial Court Practices and Processes

Introduces students to communication and language research aimed at improving the fairness, reliability, and validity of court and judicial processes, including lawyer-client interviews, interrogatories, jury selection, jury instructions, witness examination, and the use of language evidence in court. Prereq: ENGL 2030 or equivalent. Cross-listed with COMM 5681. **Semester Hours:** 3 to 3

COMM 4682 - Political Communication

Examines the communication processes involved in mediated political events. Topics include the stages of the campaign process, media coverage of the political campaign process, and literacy skills needed to understand political advertising. **Semester Hours:** 3 to 3

COMM 4683 - Media in the Courtroom

Critically examines the complex issues raised by media involvement in criminal court cases, including effects of pre-trial publicity, cameras in the courtroom, participants who argue their stories to the media, the CSI effect, and other phenomena relevant to media influence.

Semester Hours: 3 to 3

COMM 4688 - Senior Seminar: Transitioning from College to Career

Synthesis experience for communication majors designed to prepare students to enter the job market and to integrate and reflect on their experience in communication. Prereq: Communication major status. **Semester Hours:** 3 to 3

COMM 4690 - Applied Communication

Semester Hours: 3 to 3

COMM 4700 - Writing Practicum

Methods course focused on strategies of research design and writing for undergraduate students working on theses for Latin honors and for master's students seeking to complete a major research paper or thesis. Cross-listed with COMM 5700. To be eligible **Semester Hours:** 3 to 3

COMM 4710 - Topics in Communication

Special classes for faculty-directed experiences examining communication issues and problems not generally covered in the curriculum. Cross-listed with COMM 5710. **Semester Hours:** 1 to 3

COMM 4720 - Dynamics of Global Communication

Explores the word "global" in a communication context by analyzing the relationships between world media, international events, economics and the geopolitics of culture. This analysis is supported by the application of mass, human and cultural communication theory. Cross-listed with COMM 5720. **Semester Hours:** 3 to 3

COMM 4750 - Legal Reasoning and Writing

Introduces the fundamentals of legal reasoning and legal argumentation through intensive class discussion, formal debate and writing. Attention is given to the relationship between case and statutory law and their application in trial and appeals courts in the United States. Prereq: ENGL 1020, 2030, and any one 3000-level English/writing course or COMM 3120. Cross-listed with COMM 5750, PSCI 4757, 5747. **Semester Hours:** 3 to 3

COMM 4755 - Universal Internet Usability

Beginning web design course that introduces students to writing websites for non-native English speakers and for users with disabilities. Students learn HTML, style sheets, basic Photoshop, layout, navigability, and usability for these groups. Prereq: COMM 3120 (or equivalent) or permission of instructor. Cross-listed with COMM 5755. **Semester Hours:** 3 to 3

COMM 4760 - New Media

Analysis and discussion of the nature, use, and effects of computer-mediated communication in interpersonal, work, educational, societal and international contexts. Focus is on the social aspects of computer-mediated communication rather than on specific software or hardware technologies. Prereq: COMM 2800 or permission of instructor. Cross-listed with COMM 5760. **Semester Hours:** 3 to 3

COMM 4805 - Graphics

Instructs technical communicators in designing information that communicates visually as well as verbally. Students focus on document design; illustration; information retrieval; desktop publishing using Quark Xpress; and working with typesetters, printers and graphic artists. Prereq: COMM 3120. Cross-listed with COMM 5805. **Semester Hours:** 3 to 3

COMM 4830 - Visual Principles in Technical Communication

Explores the rhetoric and usability of typography and text displays, tables and charts, data graphics, technical pictorials, page and screen layout, and other visual elements of technical

communication. The course focuses on principles and research, not software training. Prereq: COMM 3120. Cross-listed with COMM 5830. **Semester Hours:** 3 to 3

COMM 4840 - Independent Study

Prereq: Permission of instructor. **Semester Hours:** 1 to 3

COMM 4995 - Travel Study

Students study various topics in a foreign country led by a CU-Denver instructor; register through the Office of International Education. Cross-listed with COMM 5995. **Semester Hours:** 1 to 15

COMM 5011 - Research Methods: Quantitative

Examines quantitative techniques used by researchers in communication, including laboratory research, field and survey research, content analysis, and interaction analysis. Objective of the course is to give students enough background to read critically in the social sciences. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4011. **Semester Hours:** 3 to 3

COMM 5015 - Communication and Civility

Examines the central role of communication in the creation and humane society. The definition, understanding, and practices of civility in public discourse and in professional, social, and personal relationships are explored. Film, literature, music, and other texts are utilized to illustrate key concepts and serve as catalysts for discussion. Prereq: Undergraduates with senior standing may enroll with permission of instructor. **Semester Hours:** 3 to 3

COMM 5020 - Feminist Perspectives on Communication

Introduces the communication theories of major feminist theorists such as Mary Daly, Bell Hooks, and Sonia Johnson, with a focus on how their theories challenge and transform current understandings of communication. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4020. **Semester Hours:** 3 to 3

COMM 5021 - Perspectives on Rhetoric

Introduces major theories of rhetoric from classical through contemporary times, including the theories of Aristotle, Cicero, I. A. Richards, Kenneth Burke, Michel Foucault and Jurgen Habermas. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4021. **Semester Hours:** 3 to 3

COMM 5022 - Critical Analysis of Communication

Surveys research methods used to analyze messages from rhetorical and critical perspectives. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4022. **Semester Hours:** 3 to 3

COMM 5025 - Philosophy of Communication

Surveys critical, epistemological, social, scientific, pedagogical, philosophical, and legal perspectives on communication, exploring the constitutive relationship between communication

and knowledge formation. Students engage communication scholarship as a social activity and become acclimated to the function of a discipline in creating a professional identity. Prereq: Undergraduates with senior standing may enroll with permission of instructor. **Semester Hours:** 3 to 3

COMM 5040 - Communication, Prisons, and Social Justice

Examines the U.S. prison-industrial complex and enables students to envision ways of reducing crime and improving democracy by engaging in community service. Note: This course fulfills the communication department's exit class requirement. Prereq: COMM 2020, or permission of instructor. Cross-listed with COMM 4040. **Semester Hours:** 3 to 3

COMM 5041 - Theories and Methods in Interpersonal Communication

Examines theories and methods used in interpersonal communication and the role of communication in the development, maintenance, and deterioration of personal relationships. Attention is also given to major types of personal relationships, such as marriage and friendship, and how communication reflects and determines the dynamics of those relationships. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4041. **Semester Hours:** 3 to 3

COMM 5045 - Female-Male Friendships

Explores friendships between women and men across the life cycle and the role of communication in those friendships. Topics include how such friendships impact self-concepts, advantages of female-male friendships, and barriers to female-male friendships. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4045. **Semester Hours:** 3 to 3

COMM 5111 - Theories of Leadership

Examines research and applications related to the major theories of leadership. Emphasizes a critical reading of research confirming or denying various theories, and stresses the historical development of theories of leadership behavior and characteristics. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4111. **Semester Hours:** 3 to 3

COMM 5120 - Writing Technical Reports

Studies various aspects of technical reports, including the theoretical applications behind making reports persuasive. Topics include informal and formal reports, progress reports, feasibility reports, empirical reports and recommendation reports. Prereq: COMM 5405. Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4120. **Semester Hours:** 3 to 3

COMM 5130 - User Interface Design and Analysis

Introduces graphical user interface design through analysis of empirical studies and hands-on application of human-computer interaction principles. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4130. **Semester Hours:** 3 to 3

COMM 5140 - Argumentation

Examines classical through contemporary theories, with special attention to types of propositions, burden of proof, analysis of issues, evidence, reasoning, fallacies, case constructions, refutation and ethics. Prereq: Undergraduates with senior standing may enroll with permission of instructor. **Semester Hours:** 3 to 3

COMM 5151 - Group Communication

Analysis of the impact of small groups on individual behavior in social and task settings. Focuses on the dynamics of small groups, including leadership, roles, norms, goals and cohesion. Prereq: Undergraduates with senior standing may enroll with permission of instructor. **Semester Hours:** 3 to 3

COMM 5205 - Empirical Research Methods for Communication

Provides exposure to empirical research methods involved in communication research: surveys, experimental design, research reviews and meta-analysis, case study, ethnography, textual analysis, process tracing, others. Basic quantitative data analysis methods (correlation, chi-square, t-tests, ANOVA) are introduced. **Semester Hours:** 3 to 3

COMM 5210 - Communication and Discourse Analysis

Examines the structural and functional factors affecting the formation, comprehension, and retention of speech. Topics include language norms, speech acts, implicature and meaning, and the analysis of conversations. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4210. **Semester Hours:** 3 to 3

COMM 5212 - Software Documentation

Covers all aspects of software documentation, including project management, audience/use analysis, document design, organization, writing and interviewing techniques, editing, production, and diagnostic and usability testing. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Previous technical writing course or industry experience. Cross-listed with COMM 4212. **Semester Hours:** 3 to 3

COMM 5215 - Ethics in Communication

Designed to help students identify and address the daily ethical challenges that occur in private, social, and professional contexts. Focus is on recognizing, analyzing, and resolving real-world ethical dilemmas using diverse approaches to ethical decision making. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4215. **Semester Hours:** 3 to 3

COMM 5220 - Human Information Processing

Examines the formation of attitude, mental set, and perception as a response to discourse organization. Examines several methods to analyze human responses to linguistic, graphic, and mathematical or statistical representations. Prereq: Undergraduates with senior standing may enroll with permission of instructor. **Semester Hours:** 3 to 3

COMM 5221 - Research Methods: Qualitative

Applies qualitative research methods to human communication practices, including the processes of designing qualitative studies, collecting data, analyzing and interpreting data, and reporting results. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4221. **Semester Hours:** 3 to 3

COMM 5222 - Professional Communication

Provides strategies for analyzing workplace situations, constructing clear and persuasive arguments and narratives to bring about positive change in organizations, and assessing the effectiveness of communication. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4222. **Semester Hours:** 3 to 3

COMM 5230 - Nonverbal Communication

Studies nonverbal behaviors that accompany or replace verbal communication, including macrospace, proxemics, kinesics, facial expression, eye contact, gestures, vocal characteristics, touch and personal adornment. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4230. **Semester Hours:** 3 to 3

COMM 5240 - Organizational Communication

Relationships among such communication factors as flow, media, channel, diversity, information delivery and organization functioning, morale, and productivity. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4240. **Semester Hours:** 3 to 3

COMM 5245 - Advanced Organizational Communication

Explores critical theoretical perspectives on communication in complex organizations, including issues and standpoints that have not been included in mainstream theory and research. Analyzes assumptions and pragmatic solutions associated with these theories. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4245. **Semester Hours:** 3 to 3

COMM 5250 - Difference Matters and Organizational Communication

Explores theoretical and practical issues regarding relationships between communication processes in contemporary U.S. organizations and socially constructed aspects of individuals' identity (e.g., race, gender, sexual orientation, class, ability and age). Prereq: Undergraduates with senior standing may enroll with permission of instructor. **Semester Hours:** 3 to 3

COMM 5255 - Negotiations and Bargaining

Designed to allow students to study theories and apply concepts that explain the influences of various forms of mediating, reducing, and/or resolving conflict among individuals, groups, organizations, nations and cultures. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4255. **Semester Hours:** 3 to 3

COMM 5260 - Communication and Conflict

Studies the influence of communication on intrapersonal, interpersonal, intragroup and intergroup conflict situations. Prereq: Undergraduates with senior standing may enroll with permission of instructor. **Semester Hours:** 3 to 3

COMM 5262 - Mediation

Explores theoretical and practical aspects of mediation in a variety of contexts ranging from divorce mediation to labor-management disputes. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4262. **Semester Hours:** 3 to 3

COMM 5265 - Gender and Communication

Explores the relationship between gender and communication, including how language treats women and men differently and verbal and nonverbal differences in women's and men's communication. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4265. **Semester Hours:** 3 to 3

COMM 5268 - Communication and Diversity in U.S. History

Explores issues of diversity and community in the construction of U.S. culture. Emphasis on legal and historical texts that codify or challenge majoritarian notions of difference and systems of social control. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4268. **Semester Hours:** 3 to 3

COMM 5270 - Intercultural Communication

Examines the philosophy, process, problems, and potentials unique to communication across cultural boundaries. Prereq: Undergraduates with senior standing may enroll with permission of instructor. **Semester Hours:** 3 to 3

COMM 5280 - Communication and Change

Examines the role of communication in change processes of various kinds, including social change and diffusion of innovations. Prereq: Undergraduates with senior standing may enroll with permission of instructor. **Semester Hours:** 3 to 3

COMM 5282 - Environmental Communication

Studies the communication processes involved in policies and practices affecting natural and human environments. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4282. **Semester Hours:** 3 to 3

COMM 5285 - Communication Processes in Technology Transfer

Surveys research addressing technology transfer processes. Students examine and critique models of technology transfers and the role of individuals, artifacts, and small teams in technology transfers. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4285. **Semester Hours:** 3 to 3

COMM 5290 - Web Design

Covers writing web pages in HTML, beginning Photoshop, style sheets, bitmapped animations, issues of usable layout, navigability, structure, typography, and color on the web. Projects require students to develop static web sites. Prereq: COMM 5405, COMM 5505, COMM 5805. Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4290. **Semester Hours:** 3 to 3

COMM 5300 - Multimedia Authoring

Analysis and evaluation of components of multimedia development and hands-on instruction featuring computer animation for advertising, training, and educational projects. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4300. **Semester Hours:** 3 to 3

COMM 5310 - Advanced Multimedia Authoring

Builds upon the fundamentals of multimedia authoring to develop advanced skills and theory. Students concentrate on developing advanced multimedia applications for education or industry. Prereq: COMM 5300, COMM 4300, previous multimedia experience. Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4310. **Semester Hours:** 3 to 3

COMM 5320 - Content Management

Centers on large-scale documentation development using XML. Students learn "Single-source" documentation management, a cost-effective way to centralize information and extend it across different platforms and different audiences. Prereq: COMM 5290, COMM 4290. Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4320. **Semester Hours:** 3 to 3

COMM 5330 - Dynamic Web Design Workshop

Introduces large-scale website development using XML and PHP. Students learn "Single-source" documentation management, a cost-effective way to centralize information and extend it across different platforms (wireless, browsers, help files) and audiences (**Semester Hours:** 1 to 1

COMM 5340 - Advanced Web Design

Focuses on user interface design for the World Wide Web using Dynamic HTML, pre-designed CGI scripts downloadable from the Web, animated vector and bitmapped graphics. Note: continuation of COMM 5290, 4290. Prereq: COMM 5290, COMM 4290 or knowledge of HTML, and CSS, and Photoshop. Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4340. **Semester Hours:** 3 to 3

COMM 5405 - Technical Communication: Writing

Provides intensive practice in technical writing using simulations of professional writing situations. Students analyze diverse audience and communication problems, including those with challenging technical content. Special emphasis is placed on the document- design process

and techniques of self-editing. Prereq: Undergraduates with senior standing may enroll with permission of instructor. **Semester Hours:** 3 to 3

COMM 5410 - Science Writing

An intensive practice in composing for diverse science publication genres and venues and practice in analyzing the ways consumers obtain and process information about scientific developments and controversies. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4410. **Semester Hours:** 3 to 3

COMM 5500 - Health Communication

Examines the role of communication in a wide range of health contexts. Topics include cultural constructions of health and illness, public health communication campaigns, client-provider interactions, telemedicine, community-based health programs and medical journalism. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4500. **Semester Hours:** 3 to 3

COMM 5505 - Technical Communication: Editing

Provides intensive practice in editing technical documents. Emphasis is on contextual editing (i.e., editing parts of a document as they relate to the whole document and the communication purpose). Students discuss the editor's role, review editing strategies, and examine methods of increasing document usability and readability. Prereq: COMM 5405. Undergraduates with senior standing may enroll with permission of instructor. **Semester Hours:** 3 to 3

COMM 5510 - Usability Testing

Teaches students how to evaluate technical documentation testing needs, evaluate testing options for their feasibility and costs/benefits, design and carry out a usability testing plan, evaluate and write up test results for actual client documents and products. Prereq: COMM 5405. Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4510. **Semester Hours:** 3 to 3

COMM 5550 - Rhetorics of Medicine & Health

This senior seminar/bridge class investigates persuasion in contemporary medicine/health care from clinical settings through mass media. Case studies explore contagion, health policy, the body, death, and biopower. The course requires extensive discussion of readings and an original research project. Cross-listed with COMM 4550. **Semester Hours:** 3 to 3

COMM 5600 - Media Theory

Surveys a broad array of critical and interpretive approaches to the study of media. Approaches include political economic, semiotic, rhetorical, psychoanalytic, feminist, and cultural. Cross-listed with COMM 4600. **Semester Hours:** 3 to 3

COMM 5601 - You Are What You Eat: Food as Communication

Because food provides a communication channel for much of who we are as individuals, as a community and as a society this course analyzes food as a form of communication. Cross-listed with COMM 4601. **Semester Hours:** 3 to 3

COMM 5605 - Rhetorical Theory for Technical Communication

Examines the principles of rhetorical theory and its relationship to technical communication. Students analyze traditional and contemporary rhetorical theories and apply them to contemporary issues of document design. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4605. **Semester Hours:** 3 to 3

COMM 5620 - Health Risk Communication

Acquaints students with contemporary theory, research, and practice in health risk communication. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4620, HBSC 5620/4620, ENVS 5620, and PBHL 4620. **Semester Hours:** 3 to 3

COMM 5621 - Visual Communication

Explores the social, cultural, and behavioral effects of visual images in a variety of contexts, including graffiti, film, advertising, art and architecture. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4621. **Semester Hours:** 3 to 3

COMM 5635 - Principles of Public Relations

Introduces theory and practice in the field of public relations, including topics such as effects upon society, public opinion, target audiences, adaptation to the media, uses, laws and ethics. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4635. **Semester Hours:** 3 to 3

COMM 5640 - Advanced Public Relations

Examines key public relations practices in private, not-for-profit and public sectors. Strategic planning processes, research methods, evaluation, reports, and collateral development are addressed, with an emphasis on the intersection of theory and practice. Prereq: COMM 4635 or COMM 5635. Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4640. **Semester Hours:** 3 to 3

COMM 5665 - Principles of Advertising

Provides a fundamental understanding and appreciation of advertising in today's global society, including consumer motivation, buying behavior, research, creative development and media planning. Prereq: Undergraduates with senior standing may enroll with permission of instructor. Cross-listed with COMM 4665. **Semester Hours:** 3 to 3

COMM 5680 - Mass Communication Law and Policy

Covers issues of mass communication and the law and ethics, including issues of the First and Fourth Amendments, communication regulations, intellectual property, public access and obscenity. Prereq: Undergraduates with senior standing may enroll by permission of instructor. Cross-listed with COMM 4680. **Semester Hours:** 3 to 3

COMM 5681 - Communication Issues in Trial Court Practices and Processes

Introduces students to communication and language research aimed at improving the fairness, reliability, and validity of court and judicial processes, including lawyer-client interviews, interrogatories, jury selection, jury instructions, witness examination, and the use of language evidence in court. Prereq: Undergraduates with senior standing may enroll by permission of instructor. Cross-listed with COMM 4681. **Semester Hours:** 3 to 3

COMM 5682 - Political Communication

Examines the communication processes involved in mediated political events. Topics include the stages of the campaign process, media coverage of the political campaign process, and literacy skills needed to understand political advertising. Prereq: Undergraduates with senior standing may enroll by permission of instructor. **Semester Hours:** 3 to 3

COMM 5700 - Writing Practicum

Methods course focused on strategies of research design and writing for undergraduate students working on theses for Latin honors and for master's students seeking to complete a major research paper or thesis. Cross-listed with COMM 4700. **Semester Hours:** 3 to 3

COMM 5710 - Topics in Communication

Special classes for faculty-directed experiences examining communication issues and problems not generally covered in the curriculum. Prereq: Undergraduates with senior standing may enroll by permission of instructor. Cross-listed with COMM 4710. **Semester Hours:** 1 to 3

COMM 5720 - Dynamics Global Communication

Explores the word "global" in a communication context by analyzing the relationships between world media, international events, economics and the geopolitics of culture. This analysis is supported by the application of mass, human and cultural communication theory. Cross-list COMM 4720. **Semester Hours:** 3 to 3

COMM 5750 - Legal Reasoning and Writing

Introduces the fundamentals of legal reasoning and legal argumentation through intensive class discussion, formal debate and writing. Attention is given to the relationship between case and statutory law and their application in trial and appeals courts in the United States. Prereq: Undergraduates with senior standing may enroll by permission of instructor. Cross-listed with COMM 4750, PSCI 4757, 5747. **Semester Hours:** 3 to 3

COMM 5755 - Universal Internet Usability

Beginning web design course that introduces students to writing websites for non-native English speakers and for users with disabilities. Students learn HTML, style sheets, basic Photoshop, layout, navigability, and usability for these groups. Prereq: COMM 3120 (or equivalent). Undergraduates with senior standing may enroll by permission of instructor. Cross-listed with COMM 4755. **Semester Hours:** 3 to 3

COMM 5760 - Computer-Mediated Communication

Analysis and discussion of the nature, use, and effects of computer-mediated communication in interpersonal, work, educational, societal and international contexts. Focus is on the social aspects of computer-mediated communication rather than on specific software or hardware technologies. Prereq: Undergraduates with senior standing may enroll by permission of instructor. Cross-listed with COMM 4760. **Semester Hours:** 3 to 3

COMM 5805 - Graphics

Instructs technical communicators in designing information that communicates visually as well as verbally. Students focus on document design; illustration; information retrieval; desktop publishing using Quark Xpress; and working with typesetters, printers and graphic artists. Prereq: COMM 5405. Undergraduates with senior standing may enroll by permission of instructor. Cross-listed with COMM 4805. **Semester Hours:** 3 to 3

COMM 5830 - Visual Principles in Technical Communication

Explores the rhetoric and usability of typography and text displays, tables and charts, data graphics, technical pictorials, page and screen layout, and other visual elements of technical communication. The course focuses on principles and research, not software training. Prereq: COMM 5405. Undergraduates with senior standing may enroll by permission of instructor. Cross-listed with COMM 4830. **Semester Hours:** 3 to 3

COMM 5840 - Independent Study

Prereq: Permission of instructor. **Semester Hours:** 1 to 3

COMM 5939 - Internship

Applies communication or technical communication concepts and skills in supervised employment situations. **Semester Hours:** 1 to 6

COMM 5995 - Travel Study

Students study various topics in a foreign country led by a CU-Denver instructor; register through the Office of International Education. Prereq: Undergraduates with senior standing may enroll by permission of instructor. Cross-listed with COMM 4995. **Semester Hours:** 1 to 15

COMM 6013 - Introduction to Graduate Work in Communication

Designed to familiarize students with the philosophical, ideological, and methodological bases of study in communication. Note: Required of all graduate students in M.A. program in communication. **Semester Hours:** 3 to 3

COMM 6300 - Educational Perspectives on Communication

Explores various relationships between education and communication. Note: May repeat this course up to three times with differing topics. **Semester Hours:** 3 to 3

COMM 6410 - Usability Test Design Project

Students collaborate with faculty and client to design and implement a usability test and evaluate its results, focusing upon an actual computer interface, or instructional documentation (in online form, hard copy, or both). Prereq: COMM 5510 and COMM 6205. **Semester Hours:** 3 to 6

COMM 6950 - Master's Thesis

Semester Hours: 1 to 6

COMM 6960 - Master's Project

Semester Hours: 1 to 3

Counseling Psych/Counselor Education Courses (CPCE)

CPCE 5010 - Counseling Theories

Focuses on counseling theories: Psychodynamic, Adlerian, Person-Centered, Existential, Behavioral, including DBT, Cognitive Behavioral, Gestalt, & Reality Therapy. Also includes an overview of the history of the counseling profession and the role and f **Semester Hours:** 3 to 3

CPCE 5100 - Techniques of Counseling

Students practice basic counseling skills, develop therapeutic intervention strategies, and improve the effectiveness of their communication by practicing listening and responding. Videotaped role-plays are utilized. Prereq: CPCE 5010. **Semester Hours:** 3 to 3

CPCE 5110 - Group Counseling

Learn group theory and dynamics. Practice facilitating a group. Learn about screening, group membership and styles, roles and behavior, termination of groups. Extensive practice in laboratory setting. Prereq: CPCE 5010 and CPCE 5100. **Semester Hours:** 3 to 3

CPCE 5120 - Counseling Grief and Loss

This elective course is an introduction and study of the field of bereavement in counseling. Studies focus on relating to client's experience with grief, loss and/or trauma through lectures, speakers, videos, readings, experiential in-class simulations, **Semester Hours:** 3 to 3

CPCE 5150 - Family Therapy Theory

Introduces couple and family theories and intervention strategies. Emphasis on historical development of systems theory. Prereq: CPCE 5010. **Semester Hours:** 3 to 3

CPCE 5160 - Techniques in Family Therapy

Intervention strategies with families. Emphasis on application of techniques evolving from treatment models. Video-taped role plays are utilized. Prereq: CPCE 5150. **Semester Hours:** 3 to 3

CPCE 5170 - Issues In Family Studies

A systemic overview of current family configurations and issues families face in today's society, including gender, intimate partner violence, step-families, grief, loss, divorce, homelessness and others. The course includes life cycle approaches and nor **Semester Hours:** 3 to 3

CPCE 5180 - Counseling Couples

A didactic and experiential course dealing with techniques of couples counseling. Emphasis is on assessment, diagnosis and treatment of couples' problems. Special topics include gay and lesbian couples, cross-cultural couples, remarried couples, cohabitin **Semester Hours:** 3 to 3

CPCE 5280 - Addictions Counseling

Includes treatment strategies for clinicians in addressing varieties of addictive behaviors including substance, abuse, eating disorders, gambling and sexual addiction. Cultural dimensions of addictions are also considered. **Semester Hours:** 3 to 3

CPCE 5330 - Counseling Issues and Ethics

An in-depth examination of ethical and legal issues in the field. Topics include working with individuals and family systems, licensure, professional associations, record keeping and statutory requirements. Prereq: CPCE 5010 and CPCE 5100. **Semester Hours:** 3 to 3

CPCE 5400 - Career Development

Development of competencies in career development counseling. Theories of work systems, psychological dynamics, information systems, and decision making models are covered. Interacting with work or family systems and other subsystems is emphasized. **Semester Hours:** 3 to 3

CPCE 5425 - Developing & Implementing a School Counseling Program: ASCA

The course is specifically designed to provide training for school counselors and related professionals to develop and implement a comprehensive counseling and guidance program, which incorporates the ASCA National Model. Prereq: CPCE 5010, 5100, 5110, **Semester Hours:** 3 to 3

CPCE 5810 - Multicultural Counseling Issues for Individuals and Families

Students engage in an in-depth racism, White privilege and other "isms," and assumptions as applied to ethnic-racial populations. Students learn alternative approaches to counseling African Americans, Asian Americans, Latino(a)s, American Indians, women, **Semester Hours:** 3 to 3

CPCE 5815 - Introduction to School Counseling

This course emphasizes the unique and varied role of the school counselor and school counseling programs in diverse public schools. The course focus will be on learning the various skills necessary to meet the needs of school age students and others in th **Semester Hours:** 3 to 3

CPCE 5820 - Strategies of Agency Counseling

Students learn the role and function of the counselor in community agency settings. Intervention strategies, consultation, administration of community mental health agencies. Prereq: CPCE 5010. **Semester Hours:** 3 to 6

CPCE 5825 - The Business Of Private Practice

This course is designed to teach students how to start and manage a successful private practice in counseling. Emphasis is placed on understanding and navigating the business side of professional counseling. **Semester Hours:** 3 to 3

CPCE 5830 - Special Topics

Specific topics vary from semester to semester. Intervention strategies with children, issues in abuse, violence, incest, legal issues, adult counseling, grief, death and dying, private practice. **Semester Hours:** 1 to 6

CPCE 5835 - Gender And Sexual Orientation

Investigates constructions of gender and sexuality in the systemic context of individuals, relationships, families, and culture. Emphasis will be placed on developing critical thinking and clinical skills that engage diverse clients in a respectful, ethical manner. **Semester Hours:** 3 to 3

CPCE 5840 - Independent Study: CPCE

Individually directed research activity on special topics not covered by course offerings. Degree students only, with advance approval by major, professor and department chair. **Semester Hours:** 1 to 4

CPCE 5910 - Practicum in CPCE

Supervised counseling practice in the counseling lab and appropriate settings (150 clock hours). Emphasis on individual and group counseling techniques and therapeutic intervention strategies. Prereq: all counseling course work must be completed. **Semester Hours:** 6 to 6

CPCE 5915 - Practicum in School Counseling

This class will provide school track students with 3 credits of fieldwork at a developmental level of their choice. The course will require students to work with a school counselor activities that the counselor is assigned under supervision. Students will **Semester Hours:** 3 to 3

CPCE 5917 - School Counseling Practicum

This class will provide school counseling track students with 6 credits of practicum experience. Prereq: CPCE 6230. **Semester Hours:** 6 to 6

CPCE 5930 - Internship in Counseling

Psychology and Counselor Education. Supervised internship of 600 clock hours. Intern performs activities of a regularly employed professional in an approved community site. Prereq: Satisfactory completion of CPCE 5910. **Semester Hours:** 1 to 6

CPCE 6000 - Introduction to Sex Therapy

Provides an overview of human sexuality over the life cycle, addressing social, psychological, and physiological aspects of human sexuality. Etiology of human sexuality diagnoses and treatment of problems related to human sexuality are addressed. Note: **Semester Hours:** 3 to 3

CPCE 6100 - Spiritual Dimensions of Counseling

A didactic and experiential course involving the following content areas: theories of spiritual development, a survey of religious traditions, assessment, ethical issues, self-of-the-therapist issues, and treatment interventions and strategies in working **Semester Hours:** 3 to 3

CPCE 6140 - Counseling Children, Adolescents and Their Parents

A didactic and experiential course addressing child, adolescent, and parental/family issues. Counseling techniques, including play therapy, and parent education are taught and practiced. Assessment tools and specific strategies are used to increase positive **Semester Hours:** 3 to 3

CPCE 6160 - Advanced Assessment: Theory and Treatment in Family Systems

Emphasis is on family diagnosis or assessment and treatment and psychological processes. Major family therapy assessment methods and instruments are covered, as well as experiential application of advanced intervention strategies. Prereq: CPCE 5010, 5100, **Semester Hours:** 3 to 3

CPCE 6220 - Youth Challenges and Resiliency

Provides the student with theory and practical exposure to contemporary youth at risk. Focuses on prevention and intervention with youth at risk from a counseling perspective. Prereq: CPCE 5010 and 5100. **Semester Hours:** 3 to 3

CPCE 6230 - Developmental Counseling in Schools: Prevention & Intervention

This course offers the tools to provide developmental counseling services in the schools, including prevention through classroom counseling activities linked with the curriculum, and responsive services. Prereq: CPCE 5010, 5100, 5110, 5330, 5400, 5425, **Semester Hours:** 3 to 3

CPCE 6240 - Consultation Strategies

Focuses on the development of consultation skills and implementation of strategies. Students are exposed to major theories of the consultation process. In addition, this course provides the opportunity to practice consultation and implementation strategies **Semester Hours:** 3 to 3

CPCE 6250 - Mental Health Diagnosis

Students develop a professional level of understanding of the major disorders commonly subsumed under the term "psychopathology." Classification of disorders in the DSM IV is utilized. Treatment alternatives are discussed. Prereq: CPCE 5010 and CPCE 5100 **Semester Hours:** 3 to 3

CPCE 6330 - Advanced Seminar in Counseling and Psychotherapy

Professional analysis of major trends in counseling and psychotherapy. Specific emphasis topics identified. Prereq: CPCE 5010, 5100 and 5330. **Semester Hours:** 3 to 3

CPCE 6350 - Theories of Personality Development and Change

An advanced course in personality theory with a focus on assumptions of each theory and each as a mechanism for change. Implications of each theory for personal growth and therapy's addressed. Cross-listed with EPSY 6350. **Semester Hours:** 3 to 3

CPCE 6810 - Advanced Multicultural Counseling

Offers essential preparation for competent multicultural counseling practice with racially diverse clients in an urban setting. Students learn, build and practice effective multicultural counseling skills. Explores the impact of race and ethnicity on indi **Semester Hours:** 3 to 3

CPCE 6840 - Independent Study

Semester Hours: 1 to 4

CPCE 6910 - Advanced Practicum in Counseling

Semester Hours: 3 to 6

CPCE 6950 - Master's Thesis

Semester Hours: 4 to 4

CPCE 7100 - Advanced Theories and Techniques in Psychotherapy

Learn and practice advanced techniques for addressing adult and adolescent clinical problems. Examine efficacy research on specific counseling techniques as associated with particular approaches in counseling. Prereq: CPCE 5010, 5100, 5820 and 6250. **Semester Hours:** 3 to 3

CPCE 7800 - Supervision in Counseling and Psychotherapy

Examines training principles, processes, and practices in clinical supervision. Emphasis on individual and family therapy supervision. Prereq: CPCE 5010, 5100, 5910 and 5930. **Semester Hours:** 3 to 3

Criminal Justice Courses (CRJU)

CRJU 1000 - Introduction to Criminal Justice

This course is designed to provide an overview of the criminal justice process and the criminal justice system in general. Concepts of crime, deviance and justice are discussed and general theories of crime causality are examined. Special emphasis is placed on the components of the criminal justice system: the police, the prosecutorial and defense functions, the judiciary and the field of corrections. **Semester Hours:** 3 to 3

CRJU 1111 - Freshman Seminar

This course explores contemporary issues and cases in the criminal justice system. Topical issues cover various forms of crime; including environmental hazards, mass murder, and sexual assault. The course also focuses on current controversies in policing, courts, corrections, and the juvenile justice system. Prereq: Open only to new Freshmen. **Semester Hours:** 3 to 3

CRJU 2041 - Crime Theory and Causes

This course provides a general survey of the nature and causes of crime and efforts of the criminal justice system to predict, prevent, modify and correct this behavior. This course involves a critical appraisal of various theories of crime causation, including an examination of biological, psychological, economic and sociological perspectives that explain crime and deviance. **Semester Hours:** 3 to 3

CRJU 3100 - Criminal Justice Research Methods

This course introduces students to the formulation of research questions covering crime and justice, research designs, data collection and the interpretation and reporting of these data in criminological and justice-system settings. Course content also includes experimental and non-experimental research designs, probability and non-probability sampling techniques and construction of scales and indexes for research purposes. **Semester Hours:** 3 to 3

CRJU 3150 - Statistics for Criminal Justice

This course serves as an introduction to descriptive and inferential statistics and the computer analysis of criminal justice data. Course content includes hypothesis testing and the basic analysis of continuous and discrete dependent variables. Emphasis **Semester Hours:** 3 to 3

CRJU 3160 - White-Collar Crime

This course introduces students to a variety of topics and issues in white-collar crime including types, causes and the measurement of white-collar crime. The class examines the debate surrounding the definition of white-collar crime, provides an overview of the costs of white-collar crime and corporate crime to society, considers competing theories that explain white-collar criminality and explores the use of criminal sanctions to deter misconduct involving corporations and elite offenders. **Semester Hours:** 3 to 3

CRJU 3220 - Community-Based Corrections

This course focuses on innovative community-based strategies for dealing with criminal offenders. Correctional alternatives to imprisonment discussed in this course include probation

and parole and various community programs such as day reporting centers, electronic monitoring, half-way houses and boot camp programs. **Semester Hours:** 3 to 3

CRJU 3250 - Violence in Society

This course examines various aspects of violence including distribution over time and space, situations and circumstances associated with violent victimization and offending and how social institutions, community structure and cultural factors shape violent events. **Semester Hours:** 3 to 3

CRJU 3251 - Crime and Media

This course surveys the relationships between mass media, crime, offenders, victims and criminal justice. It explores how the criminal justice system is portrayed in the media and the influence of these portrayals on society, public policy, and the criminal justice system. **Semester Hours:** 3 to 3

CRJU 3252 - Violent Offenders

This course consists of a historical overview of violence in American society. Course content includes an examination of violent crime rates over time, societal explanations for changes in rates and an examination of the theoretical causes and preventative strategies for acts of violence. **Semester Hours:** 3 to 3

CRJU 3310 - Police in Contemporary Society

This course examines law enforcement's role in contemporary society and the impact of police interaction on other segments of the criminal justice system. Special attention is paid to controversies related to police training and education, career development and community relations. **Semester Hours:** 3 to 3

CRJU 3320 - Police-Community Relations

This course focuses on the police and community response to crime. Course content includes an overview of the major concepts and issues involved in what many consider to be a major fundamental shift in the approach and operations of modern policing. The origins, meaning, development and experiences of community policing and various assessments of the advantages and disadvantages of community policing are emphasized. **Semester Hours:** 3 to 3

CRJU 3410 - Probation and Parole

This course is appropriate for students who have a specific interest in the role of probation and parole as correctional sanctions in community settings. Particular attention is paid to evaluations research evidence on the success of probation and parole, factors that contribute to the successful completions of probation and parole and the role that the community and citizens play in the community corrections process. **Semester Hours:** 3 to 3

CRJU 3420 - Pleas, Trials and Sentences

This course focuses on analysis of case materials involving pleas, trials and sentences. Course content includes an examination of the basic dimensions of criminality, the specific elements of

major crimes, the use of confessions, fair trial procedures and the nature of criminal sanctions including cruel and unusual punishments. **Semester Hours:** 3 to 3

CRJU 3510 - Drugs, Alcohol and Crime

This course looks at the socially constructed nature of drugs and drug policy. The course explores the connection between drugs and crime within the socio-historical context of contemporary U.S. drug policy. Special emphasis is placed on the relationships between drugs and alcohol abuse and criminal offending, including the historical and contemporary criminal justice system responses to illegal substances. **Semester Hours:** 3 to 3

CRJU 3520 - Juvenile Justice Administration

This course examines the development, change and operation of the American juvenile justice system and the social factors that shape the identification and treatment of juvenile offenders. Special emphasis is placed on the nature of juvenile law and methods of dealing with youthful offenders. **Semester Hours:** 3 to 3

CRJU 3540 - Crime and Delinquency Prevention

This course provides students with an overview of issues related to crime and delinquency prevention, both from criminological and criminal justice points of view. Crime prevention programs that encompass both the individual and community levels are examined. Responses to juvenile offenders-ranging from prevention and diversion to institutional corrections and after care are explored in context of youth policy generally. **Semester Hours:** 3 to 3

CRJU 4042 - Corrections

This course consists of an overview of the field of penology and corrections. Attention is paid to conflicting philosophies of punishment, criminological theory as it applies to the field of corrections, the selectivity of the process through which offenders move prior to their involvement in correctional programs, alternative correctional placements and empirical assessments of the short and long-term consequences of one's involvement in correctional programs. **Semester Hours:** 3 to 3

CRJU 4043 - Law Enforcement

This course presents an overview of the role of police in the United States. Attention is placed on the origins of policing, the nature of police organizations and police work, patterns of relations between the police and the public, discretion and police role in a sociolegal context. **Semester Hours:** 3 to 3

CRJU 4044 - Courts and Judicial Process

This course examines the basic functions, structure and organization of the federal and state court system, with special attention on the criminal court system. This course also focuses on the influence of judicial behavior on the court process by examining judges' policy preferences, legal considerations, group processes within courts and courts' political and social environments. **Semester Hours:** 3 to 3

CRJU 4120 - Race, Class and Crime

This course examines the relationships between race, social class and crime. Attention is given to theoretical explanations, empirical research and patterns of criminal behavior and focuses on historical frameworks that are relevant to current perspectives on the impact and interactions of race, class and crime in the field. **Semester Hours:** 3 to 3

CRJU 4121 - Ethics in Criminal Justice

This course is designed to begin preparing students in identifying and critically examining ethical issues in the criminal justice system by applying ethical decision models. This course also provides students with the unique opportunity to analyze how they would resolve these issues according to their own values and beliefs while staying within the boundaries of the law and professional codes ethics. **Semester Hours:** 3 to 3

CRJU 4130 - Poverty and Crime

This course involves an economic analysis of crime and the criminal justice system. Topics include empirical and theoretical analysis of the economic causes of criminal behavior, the social costs of crime and its prevention and the design of crime enforcement policies. **Semester Hours:** 3 to 3

CRJU 4140 - Domestic Violence and Crime

This course examines the criminal justice systems response to intimate partner violence by focusing on the interactions between victims, offenders and the individual components of the criminal justice system. By exploring the dynamics of intimate partner violence this course addresses the theory, history, research, legislation and policy implications related to the criminal justice system's response to violence against women. **Semester Hours:** 3 to 3

CRJU 4150 - Sex Offenders and Offenses

This course will explore historical and current practices of the criminal justice system to address sex offenders and offenses. Topics include the history of sexual abuse, etiology of offenders, victims issues, juvenile sex offenders, risk assessments, and treatment/supervision approaches. Prereq: CRJU 1001. **Semester Hours:** 3 to 3

CRJU 4170 - Victim Studies

This course involves the scientific study of crime victims and focuses on the physical, emotional and financial harm people suffer at the hands of criminals. Focus is placed on the victim-offender relationships, interactions between victims and the criminal justice system and connections between victims and other social groups and institutions. The theory, history, research, legislation and policy implications related to the social construction of "the victim" are explored. **Semester Hours:** 3 to 3

CRJU 4171 - Murder In America

This course examines the types, extent, nature and repercussions of homicide in the United States. Specific types of homicide including justifiable homicide, infanticide, femicide, as well as serial, mass and spree murder are examined. Focus will be given to pertinent theories about

murder as well as an in-depth look at some of the most notorious murderers in the United States. **Semester Hours:** 3 to 3

CRJU 4180 - Comparative Study of Criminal Justice Systems

This course analyzes the dynamics of criminality and the social response to criminality across countries. Special emphasis is placed on the methods of comparative legal analysis utilized to examine international differences in crime and justice, international cooperation in criminal justice and crime and development. Prereq: CRJU 1001. **Semester Hours:** 3 to 3

CRJU 4190 - Women and Crime

This course explores issues surrounding women as offenders and victims, and investigates explanations for the involvement of women in illegal activities. The course also examines the participations of women in criminal justice professions, including law enforcement, corrections, judicial processes, and law. **Semester Hours:** 3 to 3

CRJU 4230 - Corrections and Treatment

This course examines the origins and historical development of prisons and jails in America. Particular attention is given to the impact of reform movements, the rise of centralized correctional systems and regional variations in the practice of punishment. **Semester Hours:** 3 to 3

CRJU 4252 - Criminal Offenders

This course will introduce the core principles of evidence based programming and tools of motivational interviewing as it is used currently with the offender population. In addition, students will learn how to utilize these skills working with specific offender populations. **Semester Hours:** 3 to 3

CRJU 4310 - Leadership Roles in Criminal Justice

The course is designed to enhance interest, experience and knowledge in leadership that promotes professionalism and ethical behavior. Individual and organizational dynamics are explored through a critical perspective, focusing on criminal justice roles and responsibilities. The class teaches effective leadership skills in areas such as team building, strategic planning, and decision making. **Semester Hours:** 3 to 3

CRJU 4410 - Criminal Law and Constitutional Procedures

This course focuses on substantive criminal law and constitutional rights of the accused in criminal proceedings. Course content includes legal aspects of the investigation and arrest processes as well as the rules governing the admissibility of evidence in court. **Semester Hours:** 3 to 3

CRJU 4430 - Law and Society

This course introduces students to the scholarly study of law. Students will become familiar with social science perspectives of the law, legal institutions, the legal process and the impact of law on behavior, with particular emphasis on the study of criminal behavior and the criminal justice process in American society. Additional topics include theories of law and legality, comparative

legal systems, lawyers, judges and juries and the use of social science in the courts. **Semester Hours:** 3 to 3

CRJU 4440 - Courts and Social Policy

This course involves the study of emerging trends and issues in the administration of the courts, the emerging role of the judiciary in the administration of programs in the public and private sectors and the implications of court administration on social policy. Course content includes the history of the judicial approaches to the criminal justice administrative process and substantive social policy. **Semester Hours:** 3 to 3

CRJU 4450 - Homeland Security

This course is an in-depth analysis of homeland security in the U.S. Topics include the initial concepts and strategies of securing land borders, seaports, and airports, the establishment of the Department of Homeland Security, and the functions and operations of the DHS today and in the future. Prereq: CRJU 1001. **Semester Hours:** 3 to 3

CRJU 4520 - Gangs and Criminal Organizations

This course traces the origins and historical development of the activities known as "organized crime." These crimes are some of the most dangerous to American society and range from the commonly known offenses of gambling and narcotics to the more subtle and sophisticated, less understood but equally serious, crimes of extortion, commercial bribery and political corruption. **Semester Hours:** 3 to 3

CRJU 4530 - Families and Intergenerational Crime

This course focuses on the family as the primary institutional mechanism of social control. The course is structured around social learning theory and explores the relationships between exposure to childhood violence and violence in dating relationships during adolescence and later violent marital relationships. The "cycle of violence" is also discussed in terms of the impact on early childhood violence on juvenile delinquency, adult criminality and violent behavior in general. **Semester Hours:** 3 to 3

CRJU 4600 - Special Topics in Criminal Justice

This highly specialized seminar addresses cutting-edge and emerging developments in the field of criminal justice and provides students and faculty with the opportunity to explore significant themes, issues and problems from a broad interdisciplinary perspective. Topics vary from semester to semester. Prereq: CRJU 1001 and CRJU 2041 or permission of instructor. **Semester Hours:** 3 to 3

CRJU 4840 - Independent Study: CRJU

This course consists of faculty-guided research in an area of mutual interest to the student and instructor. Students are responsible for selecting their area of inquiry prior to contacting the instructor. Permission of instructor is required. **Semester Hours:** 1 to 6

CRJU 4939 - Internship

Internships involve a career-related supervised experiential course in a criminal justice agency. Permission to enroll must be preceded by an application for an internship. Permission of instructor and advisor is required for undergraduate students. **Semester Hours:** 1 to 6

CRJU 5001 - CJ Systems, Policies/Practice

This course examines the salient, current critical issues in the justice system affecting law enforcement, courts, corrections, and recent social developments related to personnel. The class includes in-depth explorations of the development, implementation, and analysis of public policy in the field of criminology. **Semester Hours:** 3 to 3 **When Offered:** FALL SPR

CRJU 5002 - Criminological Theory

Explores the origins of criminal behavior and the impact of crime on society. The course examines theories of deviant, delinquent, and criminal behavior. Additionally, practical implications and application of theoretical constructs are analyzed through current research paradigms and empirical research. **Semester Hours:** 3 to 3 **When Offered:** FALL SPR

CRJU 5003 - Research Methods

Provides an assessment of research through an examination of applied designs and analytical models. The logic and rationale of these strategies are contrasted and their relative merits are critiqued. Research problems in the system are utilized to illustrate the applications and interpretation of alternative strategies. **Semester Hours:** 3 to 3 **When Offered:** FALL SPR

CRJU 5004 - Statistics

This course covers principles of descriptive and inferential statistics and provides tools for understanding research findings. Topics include: hypothesis testing and point estimation; bivariate and multivariate measures of association; inferential statistics. **Semester Hours:** 3 to 3 **When Offered:** FALL SPR

CRJU 5005 - Law & Society

Introduces a variety of topics related to law's varying functions and societal implications. The course focuses on social/ legal theory and analyzes law and legal institutions from a critical perspective. Materials provide content on how to evaluate law and legal institutions, especially in relation to equality, justice, and fairness. **Semester Hours:** 3 to 3 **When Offered:** FALL SPR

CRJU 5200 - Wrongful Convictions

This seminar examines the dark figure of the criminal justice system; wrongful convictions of innocent people. This course explores the continuum of justice-system errors ranging from persons who are falsely accused (arrested, prosecuted, and tried) to those who are wrongly convicted and imprisoned, to death row inmates who are erroneously executed. Cross-listed with CRJU 7200. **Semester Hours:** 3 to 3

CRJU 5210 - Prisoner Reentry

This seminar examines the harsh realities of prisoner reentry and offers solutions to prepare inmates for release, reduce recidivism, and restore them to adjustment once back in the community, while simultaneously meeting the demands of public safety. Cross-listed with CRJU 7210. **Semester Hours:** 3 to 3

CRJU 5220 - The American Jury System

This seminar examines historical and current issues in jury decision making and dynamics. The course explores issues such as jury size, eyewitness testimony, and jury reform. Court decisions are examined as a comprehensive understanding of jurors and their role. Cross-listed with CRJU 7220. **Semester Hours:** 3 to 3

CRJU 5250 - Criminal Offenders

Crime can have a devastating effect on the lives of victims, families and communities with extraordinary costs to society as a whole. Documented evidence suggests that community safety is best achieved through promoting rehabilitation of offenders rather than relying solely on prisons and containment. This course introduces the core principles and tools of motivational interviewing as it is used currently with the offender population. Students learn how to utilize these skills working with specific offender populations and how to motivate these often resistive clients to change their thinking patterns and behaviors. Cross-listed with CRJU 7250.

Semester Hours: 3 to 3

CRJU 5260 - Crime and Literature

This seminar focuses on non-fiction literature as it relates to criminality and the Criminal Justice System. A substantial number of people in the United States form impressions and evaluate the effectiveness of the Criminal Justice System based on accounts presented within various types of nonfiction literature, either as social commentary or in biographical/autobiographical form. This course explores samples of these types of commentary, in order to more fully understand and appreciate their impact on shaping public opinion of the Criminal Justice System. Cross-listed with CRJU 7260. **Semester Hours:** 3 to 3

CRJU 5270 - Case Studies in Crim Justice

This seminar attempts to examine the lives of people who live on the margins of a society that perceives them as outsiders. Ethnographic studies which utilized observation, participant observations and interviews as their primary research methodology are assigned in order to develop a critical understanding of the social marginalization and cultural aspects of the lives of real human beings living on the constant edge of the law. Cross-listed with CRJU 7270.

Semester Hours: 3 to 3

CRJU 5280 - Computer Crime

The course is designed to enhance interest, experience and knowledge in leadership that promotes professionalism and ethical behavior. Individual and organizational dynamics are explored through a critical perspective, focusing on criminal justice roles and responsibilities. The class teaches effective leadership skills in areas such as team building, strategic planning, and decision making. Cross-listed with CRJU 7280. **Semester Hours:** 3 to 3

CRJU 5301 - Crime and Media

This course surveys the relationship between mass media and the U.S. criminal justice system. Special attention is given to the role of media in the social construction of reality. Emphasis is placed on the application of social constructionism to criminal justice related social problems. Cross-listed with CRJU 7301. **Semester Hours:** 3 to 3

CRJU 5320 - Police Administration

Considers the major issues confronting police executives, such as professionalism, recruitment, selection, training, deployment, innovation, evaluation, and charges of brutality, inefficiency, and corruption. Cross-listed with CRJU 7320. **Semester Hours:** 3 to 3

CRJU 5325 - Qualitative Methods for Criminal Justice

Focuses on qualitative methods applicable to research in the field of criminal justice. The primary focus is on ethnographic approaches employing such fieldwork techniques as observation, participant observation, interviews, content analysis, life histories and case studies. Cross-listed with CRJU 7325. **Semester Hours:** 3 to 3

CRJU 5330 - Gangs and Criminal Organizations

This course examines extent, nature and trends of gangs and criminal organizations. We focus on contemporary studies and theories of gang behavior and organized crime. The course examines types of crime, gender and race issues, transnational violence, and public policies regarding criminal organizations. Cross-listed with CRJU 7330. **Semester Hours:** 3 to 3

CRJU 5361 - Capstone Seminar

In this seminar, students demonstrate their mastery of the knowledge and skills acquired in core courses, as applied to either their chosen program concentration or individualized program, by conducting a Program Integration Project. The PIP may be either **Semester Hours:** 3 to 3

CRJU 5391 - Sex Offenders and Offenses

This course will focus on challenges practitioners face in the management of sex offenders. It covers development of programs and partnerships that can effectively assess, inform, manage and treat sex offenders through all phases of the system and reduce recidivism. Cross-listed with CRJU 7391. **Semester Hours:** 3 to 3

CRJU 5410 - Victimology

This course examines victim-offender relationships, the interactions between victims and the criminal justice system and the connections between victims and other social groups and institutions among various populations. This course addresses the theory, history, research, legislation and policy implications related to the social construction of "the victim." Cross-listed with CRJU 7410. **Semester Hours:** 3 to 3

CRJU 5420 - Violence in Society

This course examines various aspects of violence including distribution over time and space, situations and circumstances associated with violent victimization and offending, and how social

institutions, community structure and cultural factors shape violent events. Cross-listed with CRJU 7420. **Semester Hours:** 3 to 3

CRJU 5430 - Drugs, Alcohol and Crime

This course provides an interdisciplinary overview of theory, research and policy issues surrounding the relationship between drugs, alcohol and crime; and the criminal justice system response. The course explores the socially constructed nature of illegal substances and connections to U.S. drug policy. Cross-listed with CRJU 7430. **Semester Hours:** 3 to 3

CRJU 5510 - Contemporary Issues in Law Enforcement

Examines current thinking and experience with respect to changing and reforming police programs and practices. The course focuses primarily on the American police experience, reviewing major innovations, exploring their rationale, and examining organizational impediments to their implementation. Cross-listed with CRJU 7510. **Semester Hours:** 3 to 3

CRJU 5520 - Corrections

Provides a critical examination of the development and implementation of correctional systems in America. The course presents the origins of correctional efforts and the evolution of the prison; reviews punishment and rehabilitation rationales in the context of sentencing models; examines the social organization of the prison, including inmate subcultures and staff work strategies; and assesses the inmates' rights movement and the impact of judicial intervention in correctional settings. Cross-listed with CRJU 7520. **Semester Hours:** 3 to 3

CRJU 5530 - Community Corrections

Analyzes the theories and practices of probation and parole, responses of paroling authorities to public pressures and court controls, and their implications for rehabilitation. Efforts to bridge institutional settings and community life, as well as the feasibility and effectiveness of treating individuals under sentence in the community, are reviewed. Cross-listed with CRJU 7530.

Semester Hours: 3 to 3

CRJU 5540 - Juvenile Justice Administration

Examines the policies and practices of agencies in processing youthful offenders through the juvenile court system, reviews trends in juvenile justice policymaking, and assesses changes in response to juvenile crime by both the juvenile justice and criminal justice systems. Cross-listed with CRJU 7540. **Semester Hours:** 3 to 3

CRJU 5550 - Criminal Justice Policy and Planning

Provides a survey of conceptual and design strategies in criminal justice policy analysis. The logic and rationale of these various strategies are contrasted, and their relative merits are critiqued. Selected policy issues in the criminal justice system are utilized to illustrate the application and interpretation of alternative strategies. Cross-listed with CRJU 7550. **Semester Hours:** 3 to 3

CRJU 5551 - Courts, Law & Justice

Analyzes judicial organization, court administration, and criminal court judicial decision making practices within the context of the broader operation of the criminal justice system. Special attention is paid to the social organization of the courtroom, **Semester Hours:** 3 to 3

CRJU 5552 - Criminal Justice Ethics

Offers a normative framework within which to explore ways to increase sensitivity to the demands of ethical behavior among criminal justice personnel. The application of a normative perspective enhances the possibility that moral problems are better understood, more carefully analyzed, and rendered more tractable applied ethics forces a reflection not just on ethics, but also on the nature and operation of the criminal justice system itself. Cross-listed with CRJU 7552. **Semester Hours:** 3 to 3

CRJU 5553 - Women and Crime

Explores issues surrounding women as offenders, victims, and criminal justice professionals. Investigates explanations for the involvement of women in illegal activities. Analyzes the plight of battered women, rape victims, and other female victims. Examines the participation of women in law enforcement judicial processes, corrections and lawmaking. Cross-listed with CRJU 7553. **Semester Hours:** 3 to 3

CRJU 5555 - Profiling Criminal Behavior

This seminar examines the dynamics of individual criminal acts utilizing inductive and deductive methodology to profile criminal behavior, offender characteristics, crime scene investigation, evidence collection, and case linkage of specific categories of crimes. Topical areas in this seminar will include homicide, serial crime, stalking. **Semester Hours:** 3 to 3

CRJU 5571 - The Social Organization of Crime

Explores the relationship of neighborhood social disorganization to the dynamics of crime from a social ecology perspective. The course examines the underlying social causes of phenomena such as criminal victimization, violent and property crime, neighborhood fear, neighborhood deterioration, and recidivism. The course examines social, structural, and ecological characteristics of neighborhoods and communities in affecting crime. Cross-listed with CRJU 7571. **Semester Hours:** 3 to 3

CRJU 5572 - Race, Crime and Justice

Examines the role of race in criminal justice processing. This course examines the research findings, interpretations, issues, and implications in assessing the impact of race in the administration of criminal justice. Explores the policy implications concerning the nature and extent of racial disparities in the criminal justice system and lays out a research agenda to more strategically address these issues within criminal justice policy making. Cross-listed with CRJU 7572. **Semester Hours:** 3 to 3

CRJU 5574 - White Collar Crime

Employs both the social science and legal approaches to examine crime committed by corporations as well as by individuals in white collar occupations. The course covers how such

crimes are socially defined, who commits them, who is victimized by them, which social contexts promote them, and how society and the criminal justice system respond to them. Cross-listed with CRJU 7574. **Semester Hours:** 3 to 3

CRJU 5575 - The Mentally Disordered Offender

Examines the offender who may be mentally disordered. A survey is made of the various phases of the criminal justice system where psychiatrists are involved, e.g., diversion, fitness, insanity and sentencing. Dangerous sex offender legislation, "not guilty by reason of insanity" and "guilty but mentally ill" statutes, and issues concerning confidentiality, informed consent, and treatment are addressed. Cross-listed with CRJU 7575. **Semester Hours:** 3 to 3

CRJU 5576 - Social Science in the Criminal Justice System

Examines the use of social science as a tool for legal analysis within the criminal justice system. The course examines how social science research is used to resolve relatively simple factual disputes, then moves on to more complex issues that arise when social science is invoked to make or to change law, both constitutional law (particularly the First, Sixth, Eighth, and Fourteenth amendments) and common law, particularly the construction of procedural rules that govern the operations of the criminal justice system. Cross-listed with CRJU 7576.

Semester Hours: 3 to 3

CRJU 5910 - Women and Violence: a Sociological Perspective

This course is a sociological, feminist analysis of violence against women and girls that addresses the intersection of sexism and other forms of oppression such as racism, classism and heterosexism within historical, cultural, social and institutional contexts. Topics covered focus on overt and covert forms of sexual coercion, harassment and assault, battering and stalking. Cross-listed with CRJU 7910, PUAD 5910 and 7910. **Semester Hours:** 3 to 3

CRJU 5920 - Psychology of Violence Against Women

This class addresses the contributions and the limitations of current empirical and clinical psychological literatures about domestic violence. Topics covered include: distinguishing among mental health professionals regarding work with DV clients; the psychological impacts of domestic violence; services useful for responding to the needs of women and children; and an introduction to the psychology and treatment of batterers. Cross-listed with CRJU 5920, PUAD 5920 and 7920. **Semester Hours:** 3 to 3

CRJU 5930 - Battered Women and The Legal System

This course provides a practical understanding of how the following relate to battered women and their children; a) major developments in federal, state, tribal, administrative, statutory and case law; b) the role and responses of the law enforcement, judges, attorneys, victim assistance providers and other legal system agents; and c) the role and process of victim advocacy. Cross-listed with CRJU 7930, PUAD 5930 and 7930. **Semester Hours:** 3 to 3

CRJU 5940 - Domestic Violence Social Change and Advocacy

Info on theories & strategies behind contemp. social change movements & skills necessary to organize & implement actions to influence public awareness & policy. Values of US society are

complex & require advocates/activists to develop a heightened sense o **Semester Hours:** 3 to 3

CRJU 6600 - Special Topics in Criminal Justice

This highly specialized seminar addresses cutting-edge and emerging developments in the field of criminal justice and provides students and faculty with the opportunity to explore significant themes, issues, and problems from a broad interdisciplinary per **Semester Hours:** 3 to 3

CRJU 6840 - Independent Study: C J

Affords the student the opportunity to pursue creative research activities under the individual supervision of a full-time faculty member. No more than six semester hours of credit for independent study may be applied toward the MCJ degree. MCJ Prereq: 12 semester hours of criminal justice course work and permission of instructor. **Semester Hours:** 1 to 3

CRJU 6910 - Field Study in Criminal Justice

For students who have not had practitioner experience, a full- or part-time internship is required. Prereq: 18 hours of criminal justice course work and permission of instructor and/or advisor. **Semester Hours:** 3 to 3

CRJU 6950 - Master's Thesis

Independent original research project supervised and evaluated by a thesis committee. Prereq: 33 semester hours of course work and permission of MCJ director, program advisor and thesis chair. **Semester Hours:** 3 to 6

CRJU 7200 - Wrongful Convictions

This seminar examines the dark figure of the criminal justice system; wrongful convictions of innocent people. This course explores the continuum of justice-system errors ranging from persons who are falsely accused (arrested, prosecuted, and tried) to those who are wrongly convicted and imprisoned, to death row inmates who are erroneously executed. Cross-listed with CRJU 5200. **Semester Hours:** 3 to 3

CRJU 7210 - Prisoner Reentry

This seminar examines the harsh realities of prisoner reentry and offers solutions to prepare inmates for release, reduce recidivism, and restore them to adjustment once back in the community, while simultaneously meeting the demands of public safety. Cross-listed with CRJU 5210. **Semester Hours:** 3 to 3

CRJU 7220 - The American Jury System

The aim of this seminar is to raise most of the issues that have to be considered by anyone who wants to understand the American jury. This course attempts to determine what kind of complex matrix of legal functions, social symbols, practical reforms, political philosophy and human psychology the jury can be located. Cross-listed with CRJU 5220. **Semester Hours:** 3 to 3

CRJU 7250 - Criminal Offenders

Crime can have a devastating effect on the lives of victims, families and communities with extraordinary costs to society as a whole. Documented evidence suggests that community safety is best achieved through promoting rehabilitation of offenders rather than relying solely on prisons and containment. This course introduces the core principles and tools of motivational interviewing as it is used currently with the offender population. Students learn how to utilize these skills working with specific offender populations and how to motivate these often resistive clients to change their thinking patterns and behaviors. Cross-listed with CRJU 5250.

Semester Hours: 3 to 3

CRJU 7260 - Crime and Literature

This seminar focuses on non-fiction literature as it relates to criminality and the Criminal Justice System. A substantial number of people in the United States form impressions and evaluate the effectiveness of the Criminal Justice System based on accounts presented within various types of nonfiction literature, either as social commentary or in biographical/autobiographical form. This course explores samples of these types of commentary, in order to more fully understand and appreciate their impact on shaping public opinion of the Criminal Justice System. Cross-listed with CRJU 5260. **Semester Hours:** 3 to 3

CRJU 7270 - Case Studies in Criminal Justice

This seminar attempts to examine the lives of people who live on the margins of a society that perceives them as outsiders. Ethnographic studies which utilized observation, participant observations and interviews as their primary research methodology are assigned in order to develop a critical understanding of the social marginalization and cultural aspects of the lives of real human beings living on the constant edge of the law. Cross-listed with CRJU 5270.

Semester Hours: 3 to 3

CRJU 7280 - Leadership in the Modern Criminal Justice System

The course is designed to enhance interest, experience and knowledge in leadership that promotes professionalism and ethical behavior. Individual and organizational dynamics are explored through a critical perspective, focusing on criminal justice roles and responsibilities. The class teaches effective leadership skills in areas such as team building, strategic planning, and decision making. Cross-listed with CRJU 5280. **Semester Hours:** 3 to 3

CRJU 7301 - Crime and Media

This course surveys the relationship between mass media and the U.S. criminal justice system. Special attention is given to the role of media in the social construction of reality. Emphasis is placed on the application of social constructionism to criminal justice related social problems. Cross-listed with CRJU 5301. **Semester Hours:** 3 to 3

CRJU 7320 - Seminar: Police Administration

Considers the major issues confronting police executives, such as professionalism, recruitment, selection, training, deployment, innovation, evaluation, and charges of brutality, in efficiency and corruption. Cross-listed with CRJU 5320. **Semester Hours:** 3 to 3

CRJU 7325 - Qualitative Methods for Criminal Justice

Focuses on qualitative methods applicable to research in the field of criminal justice. The primary focus is on ethnographic approaches employing such fieldwork techniques as observation, participant observation, interviews, content analysis, life histories and case studies. Cross-listed with CRJU 5325. **Semester Hours:** 3 to 3

CRJU 7330 - Gangs and Criminal Organizations

This course examines extent, nature and trends of gangs and criminal organizations. We focus on contemporary studies and theories of gang behavior and organized crime. The course examines types of crime, gender and race issues, transnational violence, and public policies regarding criminal organizations. Cross-listed with CRJU 5330. **Semester Hours:** 3 to 3

CRJU 7391 - Sex Offenders and Offenses

This course will focus on challenges practitioners face in the management of sex offenders. It covers development of programs and partnerships that can effectively assess, inform, manage and treat sex offenders through all phases of the system and reduce recidivism. Cross-listed with CRJU 5391. **Semester Hours:** 3 to 3

CRJU 7410 - Victimology

This course examines victim-offender relationships, the interactions between victims and the criminal justice system and the connections between victims and other social groups and institutions among various populations. This course addresses the theory, history, research, legislation and policy implications related to the social construction of "the victim." Cross-listed with CRJU 5410. **Semester Hours:** 3 to 3

CRJU 7420 - Violence in Society

This course examines various aspects of violence including distribution over time and space, situations and circumstances associated with violent victimization and offending, and how social institutions, community structure and cultural factors shape violent events. Cross-listed with CRJU 5420. **Semester Hours:** 3 to 3

CRJU 7430 - Drugs, Alcohol and Crime

This course provides an interdisciplinary overview of theory, research and policy issues surrounding the relationship between drugs, alcohol and crime; and the criminal justice system response. The course explores the socially constructed nature of illegal substances and connections to U.S. drug policy. Cross-listed with CRJU 5430. **Semester Hours:** 3 to 3

CRJU 7510 - Seminar: Contemporary Issues in Law Enforcement

Examines current thinking and experience with respect to changing and reforming police programs and practices. The course focuses primarily on the American police experience, reviewing major innovations, exploring their rationale, and examining organizational impediments to their implementation. Cross-listed with CRJU 5510. **Semester Hours:** 3 to 3

CRJU 7520 - Seminar: Corrections

Provides a critical examination of the development and implementation of correctional systems in America. The course presents the origins of correctional efforts and the evolution of the prison; reviews punishment and rehabilitation rationales in the context of sentencing models; examines the social organization of the prison, including inmate subcultures and staff work strategies; and assesses the inmates' rights movement and the impact of judicial intervention in correctional settings. Cross-listed with CRJU 5520. **Semester Hours:** 3 to 3

CRJU 7530 - Seminar: Community Corrections

Analyzes the theories and practices of probation and parole, responses of paroling authorities to public pressures and court controls, and their implications for rehabilitation. Efforts to bridge institutional settings and community life, as well as the feasibility and effectiveness of treating individuals under sentence in the community, are reviewed. Cross-listed with CRJU 5530.

Semester Hours: 3 to 3

CRJU 7540 - Seminar: Juvenile Justice Administration

Examines the policies and practices of agencies in processing youthful offenders through the juvenile court system, reviews trends in juvenile justice policy making, and assesses changes in response to juvenile crime by both the juvenile justice and criminal justice systems. Cross-listed with CRJU 5540. **Semester Hours:** 3 to 3

CRJU 7550 - Seminar: Criminal Justice Policy Analysis

Provides a survey of conceptual and design strategies in criminal justice policy analysis. The logic and rationale of these various strategies are contrasted, and their relative merits are critiqued. Selected policy issues in the criminal justice system are utilized to illustrate the application and interpretation of alternative strategies. Cross-listed with CRJU 5550. **Semester Hours:** 3 to 3

CRJU 7551 - Courts, Law & Justice

Analyzes judicial organization, court administration, and criminal court judicial decision making practices within the context of the broader operation of the criminal justice system. Special attention is paid to the social organization of the courtroom, **Semester Hours:** 3 to 3

CRJU 7552 - Seminar: Criminal Justice Ethics

Offers a normative framework within which to explore ways to increase sensitivity to the demands of ethical behavior among criminal justice personnel. The application of a normative perspective enhances the possibility that moral problems are better understood, more carefully analyzed, and rendered more tractable. Applied ethics forces a reflection not just on ethics, but also on the nature and operation of the criminal justice system itself. Cross-listed with CRJU 5552. **Semester Hours:** 3 to 3

CRJU 7553 - Seminar: Women and Criminal Justice

Explores issues surrounding women as offenders, victims, and criminal justice professionals. Investigates explanations for the involvement of women in illegal activities. Analyzes the plight of battered women, rape victims, and other female victims. Examines the participation of

women in law enforcement, judicial processes, corrections and lawmaking. Cross-listed with CRJU 5553. **Semester Hours:** 3 to 3

CRJU 7571 - Advanced Seminar: The Social Organization of Crime

Explores the relationship of neighborhood social disorganization to the dynamics of crime from a social ecology perspective. The course examines the underlying social causes of phenomena such as criminal victimization, violent and property crime, neighborhood fear, neighborhood deterioration and recidivism. The course examines social, structural, and ecological characteristics of neighborhoods and communities in affecting crime. Cross-listed with CRJU 5571. **Semester Hours:** 3 to 3

CRJU 7572 - Advanced Seminar: Race, Crime and Justice

Examines the role of race in criminal justice processing. This course examines the research findings, interpretations, issues, and implications in assessing the impact of race in the administration of criminal justice. Explores the policy implications concerning the nature and extent of racial disparities in the criminal justice system and lays out a research agenda to more strategically address these issues within criminal justice policy making. Cross-listed with CRJU 5572. **Semester Hours:** 3 to 3

CRJU 7574 - Advanced Seminar: White Collar Crime

Employs both the social science and legal approaches to examine crime committed by corporations as well as by individuals in white collar occupations. The course covers how such crimes are socially defined, who commits them, who is victimized by them, which social contexts promote them, and how society and the criminal justice system respond to them. Cross-listed with CRJU 5574. **Semester Hours:** 3 to 3

CRJU 7575 - Advanced Seminar: The Mentally Disordered Offender

Examines the offender who may be mentally disordered. A survey is made of the various phases of the criminal justice system where psychiatrists are involved, e.g., diversion, fitness, insanity and sentencing. Dangerous sex offender legislation, "not guilty by reason of insanity" and "guilty but mentally ill" statutes, and issues concerning confidentiality, informed consent, and treatment are addressed. Cross-listed with CRJU 5575. **Semester Hours:** 3 to 3

CRJU 7576 - Advanced Seminar: Social Science in the Criminal Justice System

Examines the use of social science as a tool for legal analysis within the criminal justice system. The course examines how social science research is used to resolve relatively simple factual disputes, then moves on to more complex issues that arise when social science is invoked to make or to change law, both constitutional law (particularly the First, Sixth, Eighth and Fourteenth Amendments) and common law, particularly the construction of procedural rules that govern the operations of the criminal justice system. Cross-listed with CRJU 5576. **Semester Hours:** 3 to 3

CRJU 7600 - Special Topics in Criminal Justice

This highly specialized seminar addresses cutting-edge and emerging developments in the field of criminal justice and provides students and faculty with the opportunity to explore significant themes, issues, and problems from a broad interdisciplinary per **Semester Hours:** 3 to 3

CRJU 7910 - Women and Violence: a Sociological Perspective

This course is a sociological, feminist analysis of violence against women and girls that addresses the intersection of sexism and other forms of oppression such as racism, classism and heterosexism within historical, cultural, social and institutional contexts. Topics covered focus on overt and covert forms of sexual coercion, harassment and assault, battering and stalking. Cross-listed with CRJU 5910, PUAD 5910 and 7910. **Semester Hours:** 3 to 3

CRJU 7920 - Psychology of Violence Against Women

This class addresses the contributions and the limitations of current empirical and clinical psychological literatures about domestic violence. Topics covered include: distinguishing among mental health professionals regarding work with DV clients; the psychological impacts of domestic violence; services useful for responding to the needs of women and children; and an introduction to the psychology and treatment of batterers. Cross-listed with CRJU 5920, PUAD 5920 and 7920. **Semester Hours:** 3 to 3

CRJU 7930 - Battered Women and the Legal System

This course provides a practical understanding of how the following relate to battered women and their children; a) major developments in federal, state, tribal, administrative, statutory and case law; b) the role and responses of the law enforcement, judges, attorneys, victim assistance providers and other legal system agents; and c) the role and process of victim advocacy. Cross-listed with CRJU 5930, PUAD 5930 and 7930. **Semester Hours:** 3 to 3

CRJU 7940 - Domestic Violence Social Change and Advocacy

Info on theories & strategies behind contemp social change movements & skills necessary to organize & implement actions to influence public awareness & policy. Values of US society are complex & require advocates/activists to develop a heightened sense of **Semester Hours:** 3 to 3

CRJU 8840 - Independent Study

Affords the student the opportunity to pursue creative research activities under the individual supervision of a full-time faculty member. No more than six semester hours of credit for independent study may be applied toward the PhD degree. Prereq: 12 semester hours of criminal justice course work and permission of instructor. **Semester Hours:** 1 to 3

CRJU 8990 - Doctoral Dissertation

Upon admittance to candidacy, students must be continuously registered for dissertation credit each fall and spring semester or be automatically dropped from the program. Students must register for 7.0 credit hours per semester. In cases where students will not be using any university resources during a particular semester, they may petition the PhD director to register for only 3.0 credit hours to maintain continuous enrollment. Students must be registered for

dissertation credit during the semester they have a colloquium or defense. **Semester Hours:** 1 to 10

Computer Science Courses (CSCI)

CSCI 1320 - Introduction to Computing

A course in programming for students in all disciplines who are non-computer science majors. Learning essential programming skills using a modern language like Ruby or Python, both of which are easier to learn than traditional programming languages such as C++ and Java. The student is introduced to the flow of control: selection, iteration, subprograms. Data structures: strings, arrays, records, lists, tables. Introduction to testing and debugging. Prereq: MATH 1120.

Semester Hours: 3 to 3

CSCI 1410 - Fundamentals of Computing

First course in computing for those who will take additional computer science courses. Covers the capabilities of a computer, the elements of the computer language C++, and basic techniques for solving problems using a computer. Coreq: CSCI 1411. **Semester Hours:** 3 to 3

CSCI 1411 - Fundamentals of Computing Laboratory

This laboratory is taken with CSCI 1410 and will provide students with additional help with problem solving and computer exercises to compliment the course material covered in CSCI 1410. Prereq: Freshman status. Coreq: CSCI 1410. **Semester Hours:** 1 to 1

CSCI 1510 - Logic Design

The design and analysis of combinational and sequential logic circuits. Topics include binary and hexadecimal number systems, Boolean algebra and Boolean function minimization, and algorithmic state machines. Lecture/lab includes experiments with computer-aided design tools.

Semester Hours: 3 to 3

CSCI 1800 - Special Topics

Semester Hours: 1 to 3

CSCI 2132 - Circuits and Electronics

This course is designed to serve as the basic course in CSE curriculum for second year bachelor students. It introduces the fundamentals of the analog and digit circuit abstraction and applications. Topics include: resistive elements, networks, sources, switches, MOS transistors, digital abstraction, amplifiers, energy storage elements. A web-based laboratory will allow students to have hands-on experiments. Prereq: MATH 2411, PHYS 2331, and CSCI 1510.

Semester Hours: 3 to 3

CSCI 2312 - Intermediate Programming

Programming topics in the C++ language. The emphasis is on problem solving using object oriented and Generic Programming. Topics include advanced I/O, classes, inheritance, polymorphism and virtual functions, abstract base classes, exception handling, templates, and the Standard Template Library. Prereq: CSCI 1410. **Semester Hours:** 3 to 3

CSCI 2421 - Data Structures and Program Design

Topics include a first look at an algorithm, data structures, abstract data types, and basic techniques such as sorting, searching, and recursion. Programming exercises are assigned through the semester. Prereq: ENGL 1020, CSCI 2312. **Semester Hours:** 3 to 3

CSCI 2511 - Discrete Structures

Covers the fundamentals of discrete mathematics, including: logic, sets, functions, asymptotics, mathematical reasoning, induction, combinatorics, discrete probability, relations and graphs. Emphasis on how discrete mathematics applies to computer science in general and algorithm analysis in particular. Prereq: MATH 1401. **Semester Hours:** 3 to 3

CSCI 2525 - Assembly Language and Computer Organization

Topics include computer architecture, program execution at the hardware level, programming in assembly language, the assembly process, hardware support of some high-level language features, and a program's interface to the operating system. Programming exercises are assigned in this course. These exercises involve the use of specific hardware in designated laboratories. Prereq: CSCI 1410 and 1510. **Semester Hours:** 3 to 3

CSCI 2571 - Fundamentals of UNIX

Introduces the UNIX operating system and its family of related utility programs. History and overview, versions, and common features. File operations, utilities, shells, editors, filters and data manipulation. Shell programming communications and networking, windowing environments, mail and Internet. Programming tools. Simple system administration. Credit will not count toward BSCSE degree. Prereq: Familiarity with operating systems and/or a programming course. **Semester Hours:** 3 to 3

CSCI 2800 - Special Topics

Semester Hours: 3 to 3

CSCI 3287 - Database System Concepts

Introduces database design, database management systems, and the SQL standard database language. Includes data modeling techniques, conceptual database design, theory of object-relational and relational databases, relational algebra, relational calculus, normalization and database integrity. Prereq: CSCI 2421. **Semester Hours:** 3 to 3

CSCI 3320 - Advanced Programming

A continuation of programming and problem solving methodologies. The focus will be on generic programming with C++ templates and the standard template library, and will be supplemented with object-oriented programming and top-down design. Prereq: CSCI 2421. **Semester Hours:** 3 to 3

CSCI 3412 - Algorithms

Design and analysis of algorithms. Asymptotic analysis as a means of evaluating algorithm efficiency. The application of induction and other mathematical techniques for proving the correctness of an algorithm. Data structures for simplifying algorithm design, such as hash

tables, heaps and search trees. Elementary graph algorithms. Assignments include written work and programming projects. Prereq: CSCI 2421 and CSCI 2511. **Semester Hours:** 3 to 3

CSCI 3415 - Principles of Programming Languages

Introduces programming language design concepts and implementation issues. Includes language concepts such as control structures and data types, formal language specification techniques, and syntactic and semantic implementation issues. Prereq: CSCI 2421 and 2525.

Semester Hours: 3 to 3

CSCI 3453 - Operating System Concepts

Covers the principles of computer operating systems and the essential components of an operating system. Topics include: I/O devices, file systems, CPU scheduling and memory management. Prereq: CSCI 3412 (Algorithm). **Semester Hours:** 3 to 3

CSCI 3508 - Introduction to Software Engineering

Introduces principles and practices of software engineering: software life-cycle models, requirements engineering, analysis and design tools, human factors risk management, program certification, project management and intellectual property rights. Prereq: ENGL 1020 and CSCI 3412. **Semester Hours:** 3 to 3

CSCI 3511 - Hardware-Software Interface

Hardware and software techniques needed to control and program device interfaces. Input and output devices, computer peripherals, device drivers and interfaces are introduced. Specific programmable devices are used in class projects. Prereq: CSCI 2525. **Semester Hours:** 3 to 3

CSCI 3560 - Probability and Computing

Events and probability. Discrete random variables and expectation. Moments and deviations. Chernoff bounds. The probabilistic method. Markov chains and random walks. Continuous distributions and the Poisson process. Entropy, randomness and information. Randomized algorithms. Statistical inference. Prereq: MATH 2411 and CSCI 2511. **Semester Hours:** 3 to 3

CSCI 3800 - Special Topics

Semester Hours: 3 to 3

CSCI 3840 - Independent Study: CSCI

Semester Hours: 1 to 3

CSCI 3920 - Java Applications

This course introduces students to core Java, with a focus on design and implementation of GUI's using JFrames and event driven programming. Topics include Java Collections Framework, java.io package, and topdown design of solutions to engineering applications. Prereq: CSCI 3320. **Semester Hours:** 3 to 3

CSCI 3963 - Network Structures

This interdisciplinary course examines how the technological, social and economic worlds are connected and how the study of networks sheds light on these connections. Topics include: how

opinions spread through society; the robustness and fragility of financial networks; the technology and economics of Web information and on-line communities. Prereq: MATH 2411.

Semester Hours: 3 to 3

CSCI 4034 - Theoretical Foundations of Computer Science

Introduces abstract models for computation, formal languages and machines. Topics include: automata theory, formal languages, grammars and Turing machines. Prereq: CSCI 3412.

Semester Hours: 3 to 3

CSCI 4202 - Introduction to Artificial Intelligence

Topics include heuristic search, games playing algorithms, application of predicate calculus to AI, introduction to planning, application of formal grammars to AI. Prereq: CSCI 3412.

Semester Hours: 3 to 3

CSCI 4287 - Embedded Systems Programming

Embedded Systems Programming happens across a spectrum of Domains. Embedded Systems Programming in the Small is characterized by the creation of small applications in high volumes. Embedded Systems Programming in the Large is characterized by the creation of medium to large applications in one-off or low volumes using specialized Operating Systems such as Real-time Operating Systems. Students will current languages, and are expected to have basic Operating Systems understanding. Prereq: CSCI 3453 Operating Systems Concepts. **Semester**

Hours: 3 to 3

CSCI 4408 - Applied Graph Theory

Introduces discrete structures applications of graph theory to computer science, engineering and operations research. Topics include connectivity, coloring, trees, Euler and Hamiltonian paths and circuits. Matching and covering problems, shortest route and network flows. Prereq: MATH 3000 or CSCI 2511. Cross-listed with MATH 4408. **Semester Hours:** 3 to 3

CSCI 4411 - Computational Geometry

Many practical and aesthetic algorithmic problems have their roots in geometry. Applications abound in the areas of computer graphics, robotics, computer-aided design, and geographic information systems, for example. A selection of topics from convex hull, art gallery problems, ray tracing, point location, motion planning, segment intersection, Voronoi diagrams, visibility and algorithmic folding will be covered. Prereq: CSCI 3412. Cross-listed with CSCI 5411.

Semester Hours: 3 to 3

CSCI 4501 - Java

Comprehensive course on Java programming. Coverage of programming language constructs of Java and the core libraries that come with Java: coverage of advanced topics, including technologies for building distributed applications, and interacting with a database. Prereq: CSCI 2421. **Semester Hours:** 3 to 3

CSCI 4555 - Compiler Design

Introduces the basic techniques used in translating programming languages: scanning, parsing, symbol table management, code generation, code optimization and error recovery. Prereq: CSCI 3412 and 3415. **Semester Hours:** 3 to 3

CSCI 4565 - Introduction to Computer Graphics

Introduces two and three dimensional computer graphics. Topics include scan conversion, geometric primitives, transformation, viewing, basic rendering, and illumination. Emphasis is on programming using "C" and "C++" Open GL. Prereq: CSCI 3412 and MATH 3191 or 3195. Cross-listed with CSCI 5565. **Semester Hours:** 3 to 3

CSCI 4591 - Computer Architecture

Deals with how assembly language maps to hardware, and basic hardware techniques implemented in computers. Topics include logic design of arithmetic units, data control path processor logic, pipelining, memory systems, and input-output units. The emphasis is on logic structure rather than electronic circuitry. Students must know basic control logic design and be familiar with an assembly language before taking this course. Prereq: CSCI 2525 or ELEC 2651. **Semester Hours:** 3 to 3

CSCI 4630 - Linguistic Geometry

Linguistic Geometry (LG) is a type of Game Theory in Artificial Intelligence, which permits to overcome combinatorial explosion and generate optimal strategies in real time. LG is currently changing the paradigm of military command and control in the USA and abroad. Prereq: CSCI 3412 or permission of instructor. Cross-listed with CSCI 5619. **Semester Hours:** 3 to 3

CSCI 4640 - Universal Compiler: Theory and Construction

Theoretical foundations and step-by-step hands-on experience in the development of a compiler, which can tune itself to a new programming language. This is a must-take course for future software developers as well as those interested in applications of the theory of Computer Science. Cross-listed with CSCI 5640. **Semester Hours:** 3 to 3

CSCI 4650 - Numerical Analysis I

Methods and analysis of techniques used to resolve continuous mathematical problems on the computer. Solution of linear and nonlinear equations, interpolation and integration. Prereq: MATH 2411, MATH 3191 or MATH 3195, and programming experience. Cross-listed with CSCI 5660, MATH 4650, and MATH 5660. **Semester Hours:** 3 to 3

CSCI 4660 - Numerical Analysis II

Numerical differentiation and integration, numerical solution of ordinary differential equations, and numerical solutions of partial differential equations as time allows. Prereq: MATH 3195 or both 3191 and 3200; MATH or CSCI 4650 or 5660; or programming experience. Cross-listed with CSCI 5661, MATH 4660 and 5661. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

CSCI 4738 - Senior Design I

This is an advanced practical course in which students design, implement, and document and test software systems for use in industry, non-profits, government and research institutions. The course offers practical experience by working closely with project sponsors. It also offers extensive experience in oral and written communication throughout the software life cycle.

Prereq: CSCI 3508. **Semester Hours:** 3 to 3

CSCI 4739 - Senior Design II

This course is a continuation of Senior Design I. Students must have taken Senior Design I in order to enroll for Senior Design II. In this course, the projects begun in Senior Design I are completed and presented. Prereq: CSCI 4738. **Semester Hours:** 3 to 3

CSCI 4740 - Computer Security

Introduces basic knowledge from the computer security area. Concepts and techniques of cryptography, including history of codes and ciphers, basic cryptography techniques like data encryption standards, public key systems and digital signatures. Prereq: MATH 1120. **Semester Hours:** 3 to 3

CSCI 4761 - Introduction to Computer Networks

Introduction and overview of computer networks. Topics include protocols, quality of services and performance issues. Prereq: CSCI 2421. **Semester Hours:** 3 to 3

CSCI 4771 - Introduction to Mobile Computing

Provides an in-depth understanding of the fundamentals in mobile computing and studies the existing and proposed solutions for ubiquitous computing. This course focuses on systems and networking issues involved with supporting mobility. Prereq: CSCI 3453 and 4761. Cross-listed with CSCI 5771. **Semester Hours:** 3 to 3

CSCI 4788 - Bioinformatics

Provides a broad exposure to the basic concepts and methodologies of bioinformatics and their application to analyzing genomic and proteomic data. Topics may include dynamic programming algorithms, graph theoretic techniques, hidden Markov models, phylogenetic trees, RNA/protein structure prediction and microarray analysis. Prereq: CSCI 1410 and MATH 3195 or 3191. Cross-listed with MATH 4788, PHYS 4788. **Semester Hours:** 3 to 3

CSCI 4800 - Special Topics

Credit and subject matter to be arranged. Prereq: As determined by instructor. **Semester Hours:** 3 to 3

CSCI 4840 - Independent Study

For seniors majoring in computer science. **Semester Hours:** 3 to 3

CSCI 4910 - User Experience Design

A how-to course for any technologist who has endured difficult interfaces and wants to design effective user interfaces that respect and advance the user experience. Course includes:

Psychology, HCI personas, scenarios, prototyping, and evaluation for desktop and mobile applications. Prereq: CSCI 2312 - Intermediate Programming. **Semester Hours:** 3 to 3

CSCI 4920 - Computer Game Design and Programming

Computer Game Design and Programming introduces practical and example driven approaches to modern 3D game development. Topics include 3D modeling, character animation, UI design, scripting, texture mapping, and sound effect. Prereq: CSCI 2421. **Semester Hours:** 3 to 3

CSCI 4939 - Internship

Faculty or employer-supervised employment in industry. Enrollment is limited to students who fully completed a contract for cooperative education credit by the last day of the drop or add period. Prereq: CSCI 3415. **Semester Hours:** 1 to 3

CSCI 5098 - Computer Science for Bioscientists

Provides a broad but detailed overview of the computer science field to graduate students in the biosciences, with emphasis on web technologies, programming languages, algorithms and database systems. No credit for CS graduate students. Prereq: Working knowledge of programming language (e.g., Java). **Semester Hours:** 3 to 3

CSCI 5217 - Information Theory

Introduces information theory and its application in computer science, communication theory, coding and applied mathematics. Entropy, mutual information, data compression and storage, channel capacity, rate distortion, hypothesis testing. Error detecting and correcting codes, block codes and sequential codes. Prereq: CSCI 4535. **Semester Hours:** 3 to 3

CSCI 5255 - Object Oriented Design

Software system design using object-oriented techniques, responsibility driven design and agile development practices. Topics include objects, classes, interfaces, inheritance, polymorphism, exception handling and testing. **Semester Hours:** 3 to 3

CSCI 5408 - Applied Graph Theory

Introduces discrete structures applications of graph theory to computer science, engineering and operations research. Topics include connectivity, coloring, trees, Euler and Hamiltonian paths and circuits. Matching and covering problems, shortest route and network flows. Prereq: MATH 3000 or CSCI 2511. Cross-listed with MATH 4408. **Semester Hours:** 3 to 3

CSCI 5409 - Graph Theory and Graph Algorithms

Studies geometric graphs and other geometric objects, both analysis and algorithmic construction, leads to interesting connections among VLSI design, graph theory and graph algorithms. Studies a subset of the recent literature, with special emphasis on visibility graphs, thickness of graphs, graph coloring and the surprising and elegant connections among them all. Other topics are introduced as time permits. Prereq: CSCI 3412, CSCI 4408, CSCI 5451 or MATH 4408 or permission of instructor. **Semester Hours:** 3 to 3

CSCI 5411 - Computational Geometry

Many practical and aesthetic algorithmic problems have their roots in geometry. Applications abound in the areas of computer graphics, robotics, computer-aided design, and geographic information systems, for example. A selection of topics from convex hull, art gallery problems, ray tracing, point location, motion planning, segment intersection, Voronoi diagrams, visibility and algorithmic folding will be covered. Prereq: CSCI 3412. Cross-listed with CSCI 4411.

Semester Hours: 3 to 3

CSCI 5446 - Theory of Automata

Studies the relationships between classes of formal languages (regular, context-free, context-sensitive, phrase-structure) and classes of automata (finite-state, pushdown, Turing machines). Additional topics include decidability and computability issues. Prereq: CSCI 3412. Cross-listed with MATH 5446. **Semester Hours:** 3 to 3

CSCI 5451 - Algorithms

Advanced design and analysis techniques: dynamic programming, greedy algorithms, amortized analysis. Advanced data structures: Fibonacci heaps, union-find data structures. Study of variety of special topics, which may include: graph algorithms, optimization problems, Fast Fourier Transform, string matching, geometric algorithms, NP-completeness and approximation algorithms. Prereq: CSCI 3412. **Semester Hours:** 3 to 3

CSCI 5542 - Neural Networks

Parallel distributed representations, dynamics of Hopfield-style networks, content addressable memories, and Hebbian learning are the major topics of the first half. The last half consists of simulated annealing back propagation, competitive learning, and self-organizing networks. Prereq: CSCI 3412. **Semester Hours:** 3 to 3

CSCI 5551 - Parallel and Distributed Systems

Examines a range of topics involving parallel and distributed systems to improve computational performance. Topics include parallel and distributed programming languages, architectures, networks, algorithms and applications. Prereq: Graduate standing. Cross-listed with CSCI 7551. **Semester Hours:** 3 to 3

CSCI 5552 - Advanced Topics in Parallel Processing

Examines the advances of sequential computers for gaining speed and application of these techniques to high-speed supercomputers of today. Programming methodologies of distributed and shared memory multiprocessors, vector processors and systolic arrays are compared. Performance analysis methods for architectures and programs are described. Prereq: CSCI 5551. Cross-listed with CSCI 7552. **Semester Hours:** 3 to 3

CSCI 5559 - Database Systems

Introduces database system concepts, with examination of relational database systems from conceptual design through relational schema design and physical implementation. Topics include database design and implementation for large database systems, transaction

management, concurrency control, object-oriented and distributed database management systems. Prereq: CSCI 3287. **Semester Hours:** 3 to 3

CSCI 5565 - Introduction to Computer Graphics

Introduces two and three dimensional computer graphics. Topics include scan conversion, geometric primitives, transformation, viewing, basic rendering, and illumination. Emphasis is on the programming using C and C++ Open GL. Prereq: CSCI 3412 and MATH 3191/3195. Cross-listed with CSCI 4565. **Semester Hours:** 3 to 3

CSCI 5573 - Operating Systems

Students study the principles of computer operating systems and their essential components. Team projects expose students to a variety of system design issues as they relate to the functionality and performance of the system. Topics include I/O devices, Disk Scheduling, File System Organizations, Directory Systems, Sequential and Concurrent process, CPU Scheduling, Memory Management, Deadlock, Process and Threading, and review of some related articles in the literature. Prereq: Graduate Standing. **Semester Hours:** 3 to 3

CSCI 5574 - Advanced Topics in Operating Systems

Covers the advanced topics in operating systems by examining functionality and performance issues in CPU Scheduling, communications, distributed file systems, distributed operating systems, shared-memory multiprocessors and real-time operating systems. In addition to studying papers, reviews and presentations, students carry out a semester long team project within the scope of one of the above topics. Prereq: CSCI 3453 or CSCI 5573. Cross-listed with CSCI 7574. **Semester Hours:** 3 to 3

CSCI 5582 - Artificial Intelligence

Approaches to design of systems for solving problems usually solved by humans, especially those related to intelligent decision making. Emphasis on various types of knowledge representation. Cross-listed with CSCI 7582. **Semester Hours:** 3 to 3

CSCI 5585 - Advanced Computer Graphics

An in-depth study of active research topics in computer graphics. Topics include advanced rendering, global illumination, scientific visualization, geometric modeling, simulation and animation. Emphasis is on readings from literature and on a term project. Prereq: CSCI 5565 or 4565. **Semester Hours:** 3 to 3

CSCI 5593 - Advanced Computer Architecture

Important concepts in the structural design of computer systems are covered. Topics include memory hierarchy, super pipelining and super scalar techniques, dynamic execution, vector computers and multiprocessors. **Semester Hours:** 3 to 3

CSCI 5595 - Computer Animation

This course introduces the state of the art techniques for modern computer animation focused on a practical, example driven approach to learning the unique art of 3D animation. Topics

include modeling, kinematics, rigging, textures, physically based dynamics, and rendering.

Prereq: CSCI 3412. **Semester Hours:** 3 to 3

CSCI 5610 - Computational Biology

Designed to introduce a broad range of computational problems in molecular biology. Solution techniques draw from several branches of mathematics: combinatorics, probability, optimization, and dynamical systems. No prior knowledge of biology is critical, but it would be at least helpful to have the equivalent of BIOL 5099. Prereq: CSCI 2421. **Semester Hours:** 3 to 3

CSCI 5619 - Complex Intelligent Systems

Presents the cutting-edge results of research in AI: advanced topics in linguistic geometry. LG is an approach to construction of mathematical models for reasoning about large-scale multi-agent concurrent games. The purpose of LG is to provide strategies to guide the participants of a game to reach their goals. Prereq: CSCI 4630. **Semester Hours:** 3 to 3

CSCI 5630 - Linguistic Geometry

Linguistic Geometry (LG) is a type of Game Theory in Artificial Intelligence, which permits to overcome combinatorial explosion and generate optimal strategies in real time. LG is currently changing the paradigm of military command and control in the USA and abroad. **Semester Hours:** 3 to 3

CSCI 5640 - Universal Compiler: Theory and Construction

Theoretical foundations and step-by-step hands-on experience in the development of a compiler, which can tune itself to a new programming language. This is a must-take course for future software developers as well as those interested in applications of the theory of Computer Science. Cross-listed with CSCI 4640. **Semester Hours:** 3 to 3

CSCI 5654 - Algorithms for Communication Networks

Algorithmic and mathematical underpinnings of communication networks. A taxonomy of data-packet networks depending on modes of communication: fixed-interconnection networks, radio networks and multiple-access channel. Algorithms to implement packet routing and broadcasting. Prereq: CSCI 3412. Cross-listed with CSCI 7654. **Semester Hours:** 3 to 3

CSCI 5660 - Numerical Analysis I

Methods and analysis of techniques used to resolve continuous mathematical problems on the computer. Solution of linear and nonlinear equations, interpolation and integration. Prereq: MATH 2411, MATH 3191 or MATH 3195, and programming experience. Cross-listed with CSCI 4650, MATH 4650, and MATH 5660. **Semester Hours:** 3 to 3

CSCI 5661 - Numerical Analysis II

Numerical differentiation and integration, numerical solution of ordinary differential equations, and numerical solutions of partial differential equations as time allows. Prereq: MATH 3195 or both 3191 and 3200; MATH or CSCI 4650 or 5660; or programming experience. Cross-listed with CSCI 4660, MATH 4660 and 5661. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

CSCI 5667 - Introduction to Approximation Theory

Normed linear spaces, convexity, existence and uniqueness of best approximations. Tchebychev approximation by polynomials and other related families. Least squares approximation and splines. Prereq: MATH 4320. **Semester Hours:** 3 to 3

CSCI 5682 - Expert Systems

Reviews and analyzes many expert systems documented in the literature, such as Mycin, Macsyma, and Xcon. Emphasis is given to the design of rule-based systems, the use of uncertain and incomplete information and system shells. Prereq: CSCI 3412. **Semester Hours:** 3 to 3

CSCI 5690 - Knowledge Representation for Intelligent Systems

An in-depth study of different types of knowledge representation in artificial intelligence for the efficient control of complex real-world systems like autonomous robots, space vehicles, and military units. Major emphasis is on search algorithms and heuristics, logical representation with applications to planning, formal linguistic representation. At the conclusion, all the theories studied are combined in the form of introduction to the state-of-the-art linguistic geometrical representation of complex control systems. Prereq: CSCI 3412. **Semester Hours:** 3 to 3

CSCI 5701 - High-Performance Communication Systems and Network Analysis

Protocols and architectures related to high performance communication systems as well as network performance analysis techniques are covered. Topics include Integrated Services Digital Networks (ISDN), Broadband ISDN, protocols such as ATM and SONET, and high performance network architectures such as optical networks. Analytical analysis of network performance includes queuing theory and stochastic processes. Prereq: CSCI 4761 or 5761. **Semester Hours:** 3 to 3

CSCI 5702 - Data Mining

Introduces data mining and knowledge discovery. Topics include: preprocessing, clustering, machine learning, neural networks, fuzzy sets, and evolutionary computation. Prereq: CSCI 3412 and MATH 3191/3195. **Semester Hours:** 3 to 3

CSCI 5704 - Introduction to Distributed Systems

Studies design, implementation and management of distributed systems, including communication issues, security reliability, resource sharing, and remote execution. Prereq: CSCI 3453 and 4591. **Semester Hours:** 3 to 3

CSCI 5728 - Software Engineering

Groups of students plan, analyze and design large software projects. Prereq: CSCI 3412 and 3415. **Semester Hours:** 3 to 3

CSCI 5765 - Computer Networks

An in-depth study of active research topics in computer networks. Topics include: Internet protocols, TCP/UDP, congestion and flow control, IP routings, mobile IP, P2P overlay networks,

network security, performance, and other current research topics. Prereq: Graduate standing. Cross-listed with CSCI 7765. **Semester Hours:** 3 to 3

CSCI 5771 - Introduction to Mobile Computing

Provides the fundamentals of mobile computing. Studies existing and proposed solutions for ubiquitous computing. This course focuses on systems and networking issues involved with supporting mobility. Prereq: CSCI 3453 and 4761. Cross-listed with CSCI 4771. **Semester Hours:** 3 to 3

CSCI 5780 - Theory of Distributed Computing

Elements of the theory of distributed computing through fundamental algorithmic ideas, lower bound techniques, and impossibility results. Timing assumptions (asynchrony and synchrony), simulations between models (message passing and shared memory), failure types (crash and Byzantine). Prereq: CSCI 3412. **Semester Hours:** 3 to 3

CSCI 5799 - Topics in Networked Computing

Studies in-depth active research topics in network based computing such as Cluster Computing, Grid Computing, Cloud Computing, P2P Computing, Pervasive Computing, Workflow Systems, and Social Network Computing. Students will study key research articles, **Semester Hours:** 3 to 3

CSCI 5800 - Special Topics

These special topics courses cover recent developments in an aspect of computer science. Prereq: As determined by instructor. **Semester Hours:** 3 to 3

CSCI 5840 - Independent Study

For graduate computer science students. **Semester Hours:** 1 to 3

CSCI 5941 - Directed Study: Programming Project

Software development project supervised by a faculty member approved by the Center for Computational Biology. Used towards a certificate in Computational Biology. Counts as an independent study. Prereq: CSCI 5451 and CSCI 5610. **Semester Hours:** 3 to 3

CSCI 6595 - Computational Methods in Nonlinear Programming

Introduces fundamental algorithms and theory for nonlinear optimization problems. Topics include Newton, quasi-Newton and conjugate directional methods; line search and trust-region methods; active set, penalty and barrier methods for constrained optimization; convergence analysis and duality theory. Prereq: MATH 4320, MATH 5718. **Semester Hours:** 3 to 3

CSCI 6664 - Numerical Linear Algebra

Offered every other year. Solution of linear equations, eigenvector and eigenvalue calculation, matrix error analysis, orthogonal transformation, iterative methods. Prereq: MATH 5660 and 5718. **Semester Hours:** 3 to 3

CSCI 6950 - Master's Thesis

Semester Hours: 1 to 9

CSCI 6960 - Master's Report

Students seeking a Master of Science in computer science, who do not choose to do a thesis, must complete an individual project of an investigative and creative nature under supervision of a full-time CS graduate faculty. Student must present their results to a faculty committee.

Semester Hours: 3 to 3

CSCI 7002 - Computer Security

A broad overview of computer security, roughly divided into three unequal components: a) the history of codes and ciphers; b) basic cryptographic techniques, for example, symmetric cryptography, authentication techniques, and asymmetric crypto systems, and: c) applications to current and future computer-related technologies, for example, network security, wireless communication, quantum cryptography, and more. Prereq: CSCI 5451. Cross-listed with ISMG 7002. **Semester Hours:** 3 to 3

CSCI 7173 - Computational Complexity and Algorithms

A solid, in-depth theoretical foundations in computing, computational complexity, and algorithmics. Various algorithms, including both discrete and non-discrete problem domains. NP-complete and other complete classes of problems/languages. Prereq: CSCI 3412 or equivalent. **Semester Hours:** 3 to 3

CSCI 7200 - Advances in Management Information Systems

Provides a broad coverage of research on the management of information technology. The course covers the systems-oriented research, organizational-oriented research, and information systems economics research. Prereq: PhD standing. Cross-listed with ISMG 7200. **Semester Hours:** 3 to 3

CSCI 7210 - Topics in Analytical Research in Management Information Systems

Covers a variety of analytical research topics of interest to the IS research community including the evaluation of data mining algorithm performance, cost sensitive learning and outlier detection. Prereq: Admission to the CSIS PhD program. Cross-listed with ISMG 7210.

Semester Hours: 3 to 3

CSCI 7211 - Topics in Behavioral-Organizational Research in Management Information Systems

Provides in-depth exposure to some key behavioral, management and organizational theories and models used in Information Systems research. Covers topics in socio-technical, trust, computer self-efficacy, organizational transformation, organizational learning, resource-based and coordination theories. Prereq: Admission to the CSIS PhD program. Cross-listed with ISMG 7211. **Semester Hours:** 3 to 3

CSCI 7502 - Research Methods

Promotes research skills. Involves presenting a research topic and discussions of its merits, reviewing journal articles, writing a paper and/or a proposal in the NIH/NSF format in the

student's area of research. Prereq: PhD student standing or permission of instructor for MS students who are writing a thesis. **Semester Hours:** 3 to 3

CSCI 7551 - Parallel and Distributed Systems

Examines a range of topics involving parallel and distributed systems to improve computational performance. Topics include parallel and distributed programming languages, architectures, networks, algorithms and applications. Prereq: Graduate standing. Cross-listed with CSCI 5551.

Semester Hours: 3 to 3

CSCI 7552 - Advanced Topics in Parallel Processing

Examines the advances of sequential computers for gaining speed and application of these techniques to high-speed supercomputers of today. Programming methodologies of distributed and shared memory multiprocessors, vector processors and systolic arrays are compared.

Performance analysis methods for architectures and programs are described. Cross-listed with CSCI 5552. **Semester Hours:** 3 to 3

CSCI 7574 - Advanced Topics in Operating Systems

Covers the advanced topics in operating systems by examining functionality and performance issues in CPU Scheduling, communications, distributed file systems, distributed operating systems, shared-memory multiprocessors and real-time operating systems. In addition to studying papers, reviews and presentations, students carry out a semester long team project within the scope of one of the above topics. Prereq: CSCI 3453 or CSCI 5573. Cross-listed with CSCI 5574. **Semester Hours:** 3 to 3

CSCI 7582 - Artificial Intelligence

Approaches to design of systems for solving problems usually solved by humans, especially those related to intelligent decision making. Emphasis on various types of knowledge representation. Cross-listed with CSCI 5582. **Semester Hours:** 3 to 3

CSCI 7595 - Computer Animation

This course introduces the state of the art techniques for modern computer animation focused on a practical, example driven approach to learning the unique art of 3D animation. Topics include modeling, kinematics, rigging, textures, physically based dynamics, and rendering.

Prereq: CSCI 3412. **Semester Hours:** 3 to 3

CSCI 7654 - Algorithms for Communication Networks

Algorithmic and mathematical underpinnings of communication networks. A taxonomy of data-packet networks depending on modes of communication: fixed-interconnection networks, radio networks and multiple-access channel. Algorithms to implement packet routing and broadcasting. Prereq: Permission of instructor. Cross-listed with CSCI 5654. **Semester Hours:** 3 to 3

CSCI 7711 - Bioinformatics I

(BIOL 7711-Offered on a semester basis from H.S.C.) What is Bioinformatics and why study it? How is large-scale molecular biology data generated, where and how can researchers gain access

to it, what computational analyses are possible and computational techniques for solving inference problems in molecular biology? Prereq: Permission of instructor. **Semester Hours:** 4 to 4 **When Offered:** *FALL*

CSCI 7712 - Bioinformatics II

(BIOL 7712-offered on a semester basis from H.S.C.) Inference problems and computational techniques for molecular biology, with emphasis on machine learning approaches. Use of computational induction techniques focused on information extraction from biomedical literature, inference of biochemical networks from high-throughput data and prediction of protein function. Estimation, clustering, discrimination and regression. Prereq: CSCI 7711. **Semester Hours:** 4 to 4 **When Offered:** *SPRING*

CSCI 7765 - Computer Networks

An in-depth study of active research topics in computer networks. Topics include: Internet protocols, TCP/UDP, congestion and flow control, IP routings, mobile IP, P2P overlay networks, network security, performance, and other current research topics. Prereq: Graduate standing. Cross-listed with CSCI 5765. **Semester Hours:** 3 to 3

CSCI 7799 - Topics in Networked Computing

Studies the active research topics in network based computing such as Cluster, Grid computing, P2P Computing, Pervasive Computing. Workflow system and Cloud Computing. Students will study key papers in the literature, and submit a research term project. Prereq: Graduate standing. Cross-listed with CSCI 5799. **Semester Hours:** 3 to 3

CSCI 7800 - Special Topics

These special topics courses cover recent developments in an aspect of computer science. Prereq: As determined by instructor. **Semester Hours:** 3 to 3

CSCI 7840 - Independent Study

Offers doctoral students opportunity for independent, creative work under supervision of a CSE full-time graduate faculty. **Semester Hours:** 1 to 6

CSCI 8990 - Doctoral Dissertation

Semester Hours: 1 to 9

Civil Engineering Courses (CVEN)

CVEN 1025 - Civil Engineering Graphics and Computer Aided Design

Introduces microcomputer-based, menu-driven, 2-D and 3-D computer-aided design systems; standard Civil Engineering industry details and some three-dimensional modeling of solid objects; principles on engineering drawing and descriptive geometry with applications specifically geared for civil engineers. Prereq: High School Geometry and Algebra. **Semester Hours:** 3 to 3

CVEN 1800 - Special Topics

Semester Hours: 1 to 6

CVEN 1840 - Independent Study

This category is intended for topics which students may wish to pursue on their own initiative, with guidance from a professor who agrees to limited consultation on the work and to award credit when the project is completed. Departmental approval is required. **Semester Hours:** 1 to 6

CVEN 2121 - Analytical Mechanics I

A vector treatment of force systems and their resultants; equilibrium of trusses, beams, frames, and machines, including internal forces and three-dimensional configurations, static friction, properties of areas, distributed loads and hydrostatics. Prereq: PHYS 2311 and MATH 2421. Cross-listed with MECH 2023. **Semester Hours:** 3 to 3

CVEN 2200 - Computing Methods in Civil Engineering

Introduces MATLAB computer programming for engineering applications. Students will learn programming concepts such as relational and logical operations, branching statements and loops. They will apply these concepts in the MATLAB platform to write programs to solve several engineering problems. Prereq: CVEN 1025 and MATH 2411. **Semester Hours:** 3 to 3

CVEN 2212 - Plane Surveying

Observation, analysis and presentations of basic linear, angular, area and volume field measurements common to civil engineering endeavors. Prereq/Coreq: MATH 1401. **Semester Hours:** 3 to 3

CVEN 2800 - Special Topics 2800-283X

Semester Hours: 1 to 6

CVEN 2840 - Independent Study

This category is intended for topics which students may wish to pursue on their own initiative, with guidance from a professor who agrees to limited consultation on the work and to award credit when the project is completed. Departmental approval is required. **Semester Hours:** 1 to 6

CVEN 3111 - Analytical Mechanics II

A vector treatment of dynamics of particles and rigid bodies, including rectilinear translation, central-force, general motion of particles, kinematics of rigid bodies, the inertia tensor, plane motion of rigid bodies; energy and momentum methods for particles, systems of particles and rigid bodies. Prereq: CVEN 2121. Cross-listed with MECH 2033. **Semester Hours:** 3 to 3

CVEN 3121 - Mechanics of Materials

Mechanical properties of materials, stresses and strains in members subjected to tension, compression and shear, combined stresses, flexural and shearing stresses in beams, deflections of beams, column analysis, principal stresses. Prereq: CVEN 2121. Cross-listed with MECH 3043. **Semester Hours:** 3 to 3

CVEN 3131 - Applied Mechanics

A limited study of particle and rigid body mechanics. Subject coverage introduces vector concepts of force, moment and equilibrium, then concentrates on kinematics and kinetics of particles in motion, including oscillatory and orbital and finally discusses rigid body motion with emphasis on energy and momentum methods. Prereq: MATH 2421 and PHYS 2311. (Not for Civil Engineer or Mechanical Engineer majors.) **Semester Hours:** 3 to 3

CVEN 3141 - Introduction to Structural Materials

Introduces the production, properties, and behavior of common engineering materials. Emphasis is placed on concrete, steel, and wood. Includes the techniques used to determine material properties. Coreq: CVEN 3121. **Semester Hours:** 2 to 2

CVEN 3154 - Water Quality Laboratory

Lecture and lab weekly, discussing techniques and making measurements of water purity parameters. Prereq: CHEM 1130/2031 and 2038; Prereq or Coreq: MATH 2411. **Semester Hours:** 2 to 2

CVEN 3212 - Plane Surveying For GIS Majors

This course will present the concepts and practical materials for surveying instruments, survey data collection methods and data processing with applications in GIS. It will cover the shape of the Earth theory, Map projections, Datum, 2D and 3D coordinate transformation methods and coordinate geometry problems. Prereq: MATH 1401 and 2411. **Semester Hours:** 3 to 3

CVEN 3313 - Theoretical Fluid Mechanics

Introduces the fundamentals of fluid mechanics. Subject matter includes fluid properties, hydrostatics, the continuity principle, the energy principle, the momentum principle, similitude and dimensional analysis, forces on immersed bodies and laminar and turbulent flow in a closed conduit. Prereq: CVEN 2121. **Semester Hours:** 3 to 3

CVEN 3323 - Applied Fluid Mechanics

Applies the principles of fluid mechanics to analysis and design of hydraulic systems involving pressurized pipelines, open channels and pumps. Introduces fluid measurements which

includes laboratory demonstrations and experiments. Prereq: CVEN 3313. Co **Semester Hours:** 3 to 3

CVEN 3401 - Introduction to Environmental Engineering

An introductory course that provides a unique systems approach to environmental engineering, examining the source-to-receptor feedback loop for pollution control. Physical, chemical and biological processes are integrated across atmospheric, wastewater and subsurface systems. Laboratory exercises provide direct experiential learning of key concepts. Prereq: CHEM 1130 or equivalent. Cross-listed with CVEN 5401. **Semester Hours:** 3 to 3

CVEN 3414 - Design of Water and Wastewater Systems

Covers the design of water distribution and wastewater collection systems. Topics include the design process, estimation of water demand and sewage flows, analysis of pipe networks and sewer systems, cost estimating, and design selection. Field trips are required. Prereq/Coreq: CVEN 3323. **Semester Hours:** 3 to 3

CVEN 3505 - Structural Analysis

Principles of structural analysis applied to statically determinate and indeterminate structures. Prereq: CVEN 3121. **Semester Hours:** 3 to 3

CVEN 3602 - Transportation Engineering

This course will introduce you to the concepts and methods of transportation engineering, planning and management. This course will emphasize traffic engineering. Topics will include vehicle dynamics, traffic flow fundamentals, accident analysis, signal timing, highway capacity analysis, level of service analysis, freeway operations, and evaluation procedures for alternative transportation projects. Prereq: Junior standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 3708 - Introduction to Geotechnical Engineering

Index properties of soils, soil classification, clay minerals, compaction and other soil improvement methods; shrinkage, swelling and frost action; permeability and seepage analysis, consolidation settlement and time rate of consolidation, shear strength of soils, bearing capacity and lateral earth pressure. Prereq: CVEN 3121. Prereq/Coreq: CVEN 3313. **Semester Hours:** 3 to 3

CVEN 3718 - Geotechnical Engineering I

Soil formation, phase diagram, soil constituents and behavior, description of soils, classification, clay minerals, compaction, soil improvement, capillarity, shrinkage, swell, collapsible soil, frost action, flow through porous media, and consolidation. Lab experiments, including specific gravity, grain size analysis, liquid and plastic limits, and consolidation, are to be conducted in concert with the lectures. Prereq: CVEN 3121. Coreq: CVEN 3313. **Semester Hours:** 3 to 3
When Offered: FALL SPR

CVEN 3800 - Special Topics: 3800-3839

Semester Hours: 1 to 6

CVEN 3840 - Independent Study

This category is intended for topics which students may wish to pursue on their own initiative, with guidance from a professor who agrees to limited consultation on the work and to award credit when the project is completed. Departmental approval is required. **Semester Hours:** 1 to 8

CVEN 4000 - Senior Seminar

Required for all Civil Engineering majors. Each student shall take the state-administered Fundamentals of Engineering (F.E.) examination. This course is taken the semester of or prior to graduation. This course will meet once time after the FE exam and prior to the graduation ceremony to review curriculum and examination results. This course is a pass/fail course and failure to attend the meeting of this course will cause a fail, and may delay graduation. Prereq: CVEN 3111, ELEC 3030, senior standing and approved 30 credit hour check. **Semester Hours:** 0 to 0 **When Offered:** FALL SPR

CVEN 4067 - Senior Design Projects

Senior civil engineering students, working in teams, are assigned significant open-ended design problems requiring the synthesis of material learned in previous engineering courses for solution. Design teams work independently under the supervision of a civil engineering faculty member. Prereq: Graduation Agreement and one design course. Co-req: A second design course. **Semester Hours:** 3 to 3

CVEN 4077 - Engineering Economy

Applies economic and financial principles to evaluation of engineering alternatives. Calculation of annual costs, present worth and prospective rates of return on investment. Review of systems analysis techniques, including simulation, linear programming, and project scheduling. Prereq: Junior standing. Cross-listed with MECH 4147. **Semester Hours:** 3 to 3

CVEN 4087 - Engineering Contracts

Laws met by the practicing engineer, types of contracts, specification writing, laws on contracts, agency, partnership, sales and property, with primary emphasis on rights and duties of the engineer. Prereq: Senior standing. **Semester Hours:** 3 to 3

CVEN 4388 - Site Engineering

Course introduces the fundamentals of site engineering which require understanding and interpreting landforms, slopes, contour lines, grading, drainage, and earthwork to storm water management, hydrology reports, designing roadways, and street networks. Other topics include designing for ADA and concepts of sustainability in site design. Note: CAD experience is recommended. Cross-listed with CVEN 5388. **Semester Hours:** 3 to 3

CVEN 4405 - Environmental and Water Systems Analysis

The primary focus of this course is on quantitative techniques for environmental systems modeling analysis. The course primarily covers life cycle assessments (LCA) based concepts. The course will review basic steps in conducting an LCA, data collection and data processing. Other

concepts such as EIOA, emergy and exergy analysis would be introduced. **Semester Hours:** 3 to 3

CVEN 4427 - Storm Water System Design

This course covers urban watershed analysis, design rainfall and hydrologic losses, flood frequency and design event, rational method for peak runoff prediction, street hydraulic capacity and safety, culvert hydraulics, street inlet collection system and storm sewer system design and flow analysis. Prereq: CVEN 3323 and senior standing. Cross-listed with CVEN 5427. **Semester Hours:** 3 to 3

CVEN 4537 - Numerical Methods for Engineers

Introduces numerical analysis. Solution of linear and non-linear equation systems. Numerical methods for ordinary and partial differential equations. Engineering applications. Prereq: CSCI 1410, MATH 3191 and 3200. **Semester Hours:** 3 to 3

CVEN 4565 - Timber Structure Design

Design of wood roof, wall, and floor systems including beams, columns, trusses, diaphragms and shear walls for vertical and lateral loads. Connection design, glued-laminated members, plywood, and engineered lumber are incorporated. Prereq: CVEN 3505 and CVEN 3141. Cross-listed with CVEN 5565. **Semester Hours:** 3 to 3

CVEN 4575 - Structural Steel Design

Design of structural steel members and their connections. Prereq: CVEN 3505 and CVEN 3141. **Semester Hours:** 3 to 3

CVEN 4585 - Reinforced Concrete Design

Ultimate strength methods for design of reinforced concrete structures. Prereq: CVEN 3505 and CVEN 3141. **Semester Hours:** 3 to 3

CVEN 4602 - Highway Engineering

Evaluates alternate highway routes. Discusses highway drainage, finance, maintenance, pavement design, traffic operations and principles of economic analysis. Analyses of the impact of the highway on the environment. Prereq: CVEN 3602 and CVEN 3708. **Semester Hours:** 3 to 3

CVEN 4718 - Intermediate Soils Engineering

Continuation of CVEN 3708 into selected topics in soils engineering. Laboratory experiments are performed to assess index properties of soils including gradation, soil consistency and specific gravity; moisture/density relations; soil classification, permeability, compressibility; and shear strength of soils. These soil parameters are then used in a design project required for the course. Prereq/Coreq: CVEN 3708. **Semester Hours:** 2 to 2

CVEN 4728 - Geotechnical Engineering II

Shear behavior and strength, and basic applications of shear strength (such as earth pressure and retaining structures, bearing capacity of footings, and slope stability). Lab experiments,

including permeability, direct shear, unconfined compression, and triaxial tests, are to be conducted in concert with the lectures. **Semester Hours:** 2 to 2 **When Offered:** *FALL SPR*

CVEN 4738 - Intermediate Foundation Engineering

Applies principles of soil mechanics to the analysis and design of foundations and earth structure. Theories of consolidation, earth pressure, slope stability, and bearing capacity. Studies settlement of structures, shallow and deep foundations, retaining walls and excavations. Prereq: CVEN 3708 and CVEN 3141. Coreq: CVEN 4718. **Semester Hours:** 3 to 3

CVEN 4780 - Engineering Geology

Studies geology as utilized in engineering and environmental practice. Emphasizes a conceptual integration of geologic materials, processes, and rates of change as a basis for successful application of geologic knowledge to environmental planning and engineering design projects. Prereq: MATH 2411 and CVEN 2121. Cross-listed with CVEN 5780 and GEOL 4780, 5780. **Semester Hours:** 3 to 3

CVEN 4800 - Special Topics: 4800-4839

Supervised study of special topics of interest to students under guidance of instructor. Prereq: Permission of instructor. **Semester Hours:** 1 to 6

CVEN 4840 - Independent Study

This category is intended for topics which students may wish to pursue on their own initiative, with guidance from a professor who agrees to limited consultation on the work and to award credit when the project is completed. Departmental approval is required. **Semester Hours:** 1 to 6

CVEN 5111 - Structural Dynamics

Vibration and dynamic response of simple linear and nonlinear structures to periodic and general disturbing forces. Frequency domain analysis, response analysis of multi-degree-of-freedom systems. Wind and earthquake effects. Prereq: CVEN 3505. **Semester Hours:** 3 to 3

CVEN 5121 - Intermediate Mechanics of Materials

Intermediate-level course in the mechanics of deformable bodies. Plane stress and strain; stress-strain relation with emphasis on elastic and inelastic behavior of members, and theories of failure. Discussion of basic methods of structural mechanics, with applications to asymmetric and curved beams, thick walled pressure vessels, torsion of members of noncircular section, and other selected problems in stress analysis. Prereq: CVEN 3121, MATH 3191 and 3200. **Semester Hours:** 3 to 3

CVEN 5201 - Construction Dewatering

Introduction to construction dewatering including removal of ground water and surface water in construction sites, characteristics of groundwater aquifers, groundwater flow, geotechnical investigation of dewatering problems and application of modern dewatering technology. Basic methods for controlling water on a construction project are presented incorporating open flow

and pumping of excavations, soil pre-draining, water cutoff and exclusion. Prereq: Theoretical/applied fluid mechanics, Soil mechanics. **Semester Hours:** 3 to 3

CVEN 5333 - Applied Hydrology

Engineering application of principles of hydrology. Subject matter includes precipitation measurement and data analysis, stream flow measurement and water budget analysis, evaporation and evapotranspiration, infiltration and rainfall-runoff relationships, hydrograph properties and unit hydrograph analysis, flood frequency, analysis and flood routing. Prereq: Permission of instructor. **Semester Hours:** 3 to 3

CVEN 5334 - Groundwater Hydrology

Topics include groundwater occurrence, hydrologic cycle and budget, interactions with surface waters, principles of groundwater flow, well hydraulics, well field design, regional flow systems, water and pollutant chemistry, computer modeling and groundwater management. Emphasis is on quantitative analysis methods for groundwater resource inventory, design and management. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5335 - Vadose Zone Hydrology

Engineering analysis of the vadose zone, the unsaturated porous media linking the earth surface to groundwater. Darcy's law for flow. Richards equation for moisture content. The advection-dispersion equation for solutes. Analytical solutions and numerical **Semester Hours:** 3 to 3

CVEN 5336 - Urban Runoff Quality and Quantity Modeling

This course covers rainfall/runoff data base, rain gage under-catch, statistical models for frequency analysis, Unit Graph and Kinematic Wave method for runoff prediction, urban watershed modeling, event-based flood prediction, continuous flow predictions, modeling consistency and sensitivity, impact assessments, master drainage planning, and storm centering technique. Prereq: CVEN 5333 - Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5343 - Open Channel Hydraulics

Engineering analysis and design of natural and artificial open channels. Application of uniform flow concept to design of erodible and non-erodible channels. Application of energy and momentum principles to conditions of gradually varied flow, spatially varied flow and rapidly varied flow. Prereq: CVEN 3323 or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5344 - Unsteady Open Channel Hydraulics

Derivation of basic principles of unsteady open channel flow. Application of kinematic wave, diffusive wave and dynamic wave approaches to open channel, including overland flow and flow in a drainage or river network. Introduction of numerical finite difference methods, characteristic method and simplified analytical method for the solution of unsteady open channel flow problems. Evaluation of computer simulation models such as DWOPER and SWMM. Prereq: CVEN 5343 and CVEN 5333 or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5345 - Computational Methods for Water Resources

This course covers two major areas: hydrologic and hydraulic numerical routing schemes. The hydrologic routing includes linear and nonlinear reservoir operations using the characteristic curves derived from the reservoir geometry. The hydrologic routing numerical scheme will be applied to optimize the reservoir operations for power generation, irrigation, and flood control. The hydraulic routing covers Dynamic Flood Wave, Diffusive Wave, and Kinematic Wave. The finite difference method is used to develop numerical models to predict flood flows through channels. This course also covers probable maximum precipitation and dam break flow analysis. Prereq: CVEN 3323. **Semester Hours:** 3 to 3

CVEN 5381 - Introduction to Geographic Information Systems

Provides an overview exposure and experience with various aspects of GIS technology and its uses for natural resource and infrastructure, planning, design and management. This course involves a survey of GIS software and hardware, review of cartographic mapping principles, hands-on applications to environmental impact assessment, municipal facilities management, transportation, water resources and demographics. GIS project management factors are addressed. Prereq: Graduate and/or upper division standing. **Semester Hours:** 3 to 3

CVEN 5382 - GIS Spatial Database Development

This second GIS course builds on the introductory course and addresses principles and technologies for development and conversion of spatial databases, including photogrammetry, surveying and geodesy, coordinate systems and transformations, and remote sensing. Prereq: Graduate and/or upper division standing; completion of CVEN 5381 (or equivalent) and MEng-GIS program prerequisites (especially surveying, mapping and computing); background in algebra, calculus fundamentals and facility to compute DOS/UNIX, spreadsheet, and FORTRAN; familiarity with various CAD (e.g. AutoCAD) and GIS (e.g. ArcInfo, GRASS) software is also required. **Semester Hours:** 3 to 3

CVEN 5383 - GIS Analysis -- Theory and Practice

This third course reviews GIS software functions and terminology, including data entry (input, editing), manipulation (projection, merge, window, aggregate), analysis (map algebra, overlay, Boolean, interpolation network, measurements, distance, terrain modeling, statistical analysis), query (spatial, attribute), and display/reporting. Integration of various domain-specific systems analysis models with GIS databases is also addressed. Laboratory activities involve programming applications using available GIS. Prereq: Graduate and/or upper division standing; completion of CVEN 5381 (or equivalent) and completion of MEng-GIS prerequisites (especially applied Statistics); background in algebra, calculus fundamentals, facility to compute DOS/UNIX, OS/UNIX, spreadsheet, and FORTRAN; familiarity with various CAD (e.g., AutoCAD) and GIS (e.g., ArcInfo, GRASS), software is also required. **Semester Hours:** 3 to 3

CVEN 5384 - GIS Management and Policies

This fourth course addresses aspects of GIS planning and development. These include topics of benefit-cost and financial analysis, scheduling, project management, internal and external marketing. Also, addressed are issues of GIS institutional acceptance, the role of computerized spatial data systems indecision making, application of planning techniques for accomplishing

resource goals, administrative structure which enhances efficiency of use, and legal considerations involved with development and use of such databases. Prereq: Graduate and/or upper division standing; completion of CVEN 5381 (or equivalent); familiarity with various CAD (e.g. AutoCAD) and GIS (e.g. ArcInfo, GRASS) software is also required. **Semester Hours:** 3 to 3

CVEN 5385 - GIS Relational Database Systems

Introduces relational database management system concepts with emphasis on GIS. Includes examination of relational database systems from conceptual design through relational schema design and physical implementation. Topics include SQL, database design and implementation for large database systems, transaction management, concurrency control, distributed database management systems and the interaction and progressive integration of GIS technologies and RBDMS technologies. Prereq: Graduate and/or upper division standing; completion of CVEN 5381 or equivalent and completion of MEng-GIS program prerequisites. **Semester Hours:** 3 to 3

CVEN 5386 - GIS Laboratory

Provides in-depth experience with use and programming of a particular GIS software, including ArcGIS and related object-oriented programming languages. Advanced functionality for user authoring of software interface, data management and analysis functions and output generation. Exact content will vary by semester. Prereq: Computing and Introduction to GIS or their equivalent. **Semester Hours:** 3 to 3

CVEN 5387 - Advanced Remote Sensing

Addresses remote sensing concepts including 1) imaging sensors and geo-referencing; 2) image processing for radiometric, multi-spectral image enhancement, and multi-sensor image fusion; and 3) multi-spectral image classification, including feature extraction, supervised and unsupervised classification, and extensions to hyper-spectral data. Prereq: Calculus II, Statistics, Surveying and Mapping, Introduction to GIS, GIS Spatial Data Development (CVEN 5382) or Introduction to Remote Sensing. **Semester Hours:** 3 to 3

CVEN 5388 - Site Engineering

Course introduces the fundamentals of site engineering which require understanding and interpreting landforms, slopes, contour lines, grading, drainage, and earthwork to storm water management, hydrology reports, designing roadways, and street networks. Other topics include designing for ADA and concepts of sustainability in site design. Note: CAD experience is recommended. Cross-listed with CVEN 4388. **Semester Hours:** 3 to 3

CVEN 5393 - Water Resources Development and Management

A multidisciplinary exploration of the principles governing water resources planning and development. Emphasis is on the sciences of water (physical, engineering, chemical, biological and social) and their interrelationships. **Semester Hours:** 3 to 3

CVEN 5394 - Water Resources Systems

Addresses the concepts, general processes, and quantification methods used in planning and analysis of water resource system planning and operations problems and goals, analysis methods, computer simulation and optimization. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5401 - Introduction to Environmental Engineering

Provides a broad overview of the environmental engineering and pollution control system. Offers a unique systems approach to environmental engineering, examining the source-to-receptor feedback loop system of pollution control. Process principles underlying pollutant, transport, abatement, and control are presented in a unified manner, cross-cutting atmospheric, wastewater and subsurface systems. Prereq: Graduate standing in MSCE or MSES programs or permission of instructor. Cross-listed with CVEN 3401. **Semester Hours:** 3 to 3

CVEN 5402 - Integrated Environmental Modeling

Provides unified understanding of fundamental physical, chemical and biological processes that govern the transport and fate of pollutants in environmental systems - water, air and subsurface. The course focuses on multimedia modeling and model solution methods. The course also introduces exposure and risk assessment techniques. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5403 - Environmental Regulations and Management Systems

Students will receive an overview and understanding of major environmental laws and will be introduced to legal concepts used to develop environmental laws. In addition, students will learn about environmental management systems and their applications to environmental problems. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5404 - Sustainable Water Systems: Physical & Chemical Processes

A comprehensive course that covers the theory and application of chemical (acid base equilibria, redox reactions, chemical equilibrium and kinetics etc.) and physical processes (sedimentation, filtration, adsorption, membrane separation, reactor design) used in water quality engineering, with an emphasis on sustainable treatment options, looking at social, economic and environmental aspects of these technologies. Since numbers of these technologies are energy intensive, emphasis will be placed on life cycle impacts and energy efficiency of these processes. The lectures will integrate source water quality, local, geographical conditions and regulatory requirements into design of the treatment options. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5405 - Systems Analysis for Environment and Sustainability

Focuses on quantitative techniques for environment systems modeling, analysis and assessment. The course primarily covers life cycle assessment (LCA) techniques. The students will learn the various steps for conduction an LCA including goal and scope definition, life cycle inventory (LCI), life cycle impact assessment (LCIA) and interpretation. Mathematical techniques for uncertainty & sensitivity analysis, such as Monte Carlo simulations will be

covered. Students will be exposed to several LCA case studies. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5427 - Storm Water System Design

This course covers urban watershed analysis, design rainfall and hydrologic losses, flood frequency and design event, rational method for peak runoff prediction, street hydraulic capacity and safety, culvert hydraulics, street inlet collection system and storm sewer system design and flow analysis. Prereq: CVEN 3323. Cross-listed with CVEN 4427. **Semester Hours:** 3 to 3

CVEN 5434 - Sustainable Water Systems: Biological Processes

A comprehensive course that covers the theory and application of biological processes used in water quality engineering, with an emphasis on state-of-the-art water pollution control and waste-to-energy technologies. The initial lectures will introduce material on microbial energetics, diversity, and kinetics. The remainder of the course will involve the application of fundamental principles to treatment and energy recovery processes, including bioreactor configurations and design considerations. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5444 - Design of Solid Residuals and Natural Treatment Systems

Solid residuals treatment topics include thickening, dewatering, digestion, land application and composting. Natural treatment systems topics include slow rate, rapid, and overland flow land treatment systems; and constructed wetlands. Field trip required. Prereq: Graduate standing, MATH 2411, PHYS 2311 and ability to use spreadsheets. **Semester Hours:** 3 to 3

CVEN 5456 - Engineering Practice

Consulting engineering practice and management. Professional practice and organization. Marketing, ethics, personnel selection, and training. Planning, budgeting, work scheduling, resource allocation, and balancing. Oral and written communication, quality standards, and engineering management. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5457 - Administration of Public Works

A descriptive course concerned with the administration of engineering and planning aspects of urban public works. Prereq: Graduate standing in civil engineering or public administration, or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5460 - Introduction to Sustainable Urban Infrastructure

Focuses on developing uniform vocabulary on sustainable infrastructure across science & technology, architecture & planning, public policy, and health & behavioral sciences. Students learn concepts, principles/pathways and evaluation techniques for promot **Semester Hours:** 3 to 3

CVEN 5461 - Defining and Measuring Sustainability

Unique cross-disciplinary course that teaches students community engagement strategies to define sustainability goals. Life cycle assessment and material flow analysis tools used to measure environmental sustainability benchmarks. Field work applies both **Semester Hours:** 3 to 3

CVEN 5462 - Theories of Sustainable Infrastructure Management

This seminar introduces theories of sustainable infrastructure management from a variety of disciplinary perspectives. Students then apply them to resolution of a variety of actual infrastructure management problems. **Semester Hours:** 3 to 3

CVEN 5480 - Hazardous Wastes and Site Remediation

Students learn to: (1) define and classify hazardous wastes encountered at hazardous waste-contaminated sites, (2) learn basic principles underlying currently available technologies for site remediation, (3) use EPA's technology screening matrix for technology selection, and (4) provide engineering design for selected remediation systems, e.g. ground-waterpump-and-treat, soil vapor extraction, soil washing, and bioremediation. Prereq: CVEN 5402. **Semester Hours:** 3 to 3

CVEN 5481 - Sustainable Water Systems Policy and Planning

To provide students with a working knowledge of sustainable urban water systems which are resilient, resource efficient and environment friendly. Students will learn about the various components of urban water and wastewater systems, including water resource management, treatment, transport and reuse, and how to evaluate, develop and design the various components in a sustainable manner. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5494 - Risk Assessment in Environmental Engineering

The process of determining the likelihood and extent of harm that may result from an activity or event. Topics covered are: hazard identification, dose-response evaluation, exposure assessment, and risk characterization. The subjects of risk management, risk perception, and risk communication are also discussed. Prereq: Graduate standing or permission of instructor. Cross-listed with ENVS 6200, HBSC 7340. **Semester Hours:** 3 to 3

CVEN 5514 - Matrix Analysis of Structures

Matrix analysis of skeletal structures. Systematic formulation of stiffness and flexibility methods of analysis of skeletal structures. Application of modern computational tools to structural analysis, including introduction to the finite element method. Prereq: CVEN 3505. **Semester Hours:** 3 to 3

CVEN 5515 - Introduction to Finite Element Analysis

Systematic formulation and application of the finite element approximation to the solution of engineering problems. Topics include one- and two-dimensional elasticity problems, two-dimensional heat flow and irrotational fluid flow. Elements considered include triangular and

quadrilateral elements formulated by elementary and isoparametric techniques. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5537 - Numerical Methods in Civil Engineering

Introduces numerical analysis. Solution of linear and nonlinear equation systems. Numerical methods for ordinary and partial differential equations. Engineering applications. Differs from CVEN 4537 by the addition of individual student projects. Prereq: CSCI 1100/1410, MATH 3191 and 3200. Cross-listed with ELEC 5210, MECH 5110. **Semester Hours:** 3 to 3

CVEN 5565 - Advanced Timber Structure Design

Design of wood framing systems including beams, columns, trusses, and diaphragms. Wood as a material, framing terminology, connection design, structural composite lumber, glued-laminated members, and plywood are covered. The course will emphasize on preparing students for a career in structural engineering. Prereq: C E 3505, Structural Analysis. Cross-listed with C E 4565. **Semester Hours:** 3 to 3

CVEN 5575 - Advanced Topics in Structural Steel Design

Plate buckling, plate girder design and other topics determined by class interest. Prereq: CVEN 4575. **Semester Hours:** 3 to 3

CVEN 5585 - Advanced Topics in Reinforced Concrete

Advanced topics relating to design and analysis of reinforced concrete structures. Prereq: CVEN 4585. **Semester Hours:** 3 to 3

CVEN 5602 - Advanced Street & Highway Design

This course delves into the art and science of designing sustainable and context sensitive street and highway facilities. Topics include road classification, transportation planning, road alignments, cross-section design, bicycle and pedestrian facilities, intersections, and street network design. Prereq: Permission of Instructor. **Semester Hours:** 3 to 3

CVEN 5611 - Traffic and Safety Data Analysis

Covers statistical analysis methods for engineering studies in general, and for highway accident and traffic flow data in particular. Topics include data needs, sampling designs, survey methods, hypothesis testing, tests of proportions, non-parametric tests, analysis of variance, multivariate regression, and other tests of fit. Introductory overview of state and federal accident databases. Comparisons of accident rates by highway type, vehicle speeds, vehicle types, weather conditions and other factors also presented. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5612 - Traffic Impact Assessment

Covers (1) procedures to satisfy state and local requirements for transportation impact studies, (2) methods to perform trip generation, distribution, and traffic assignment for impact analyses, and (3) analysis of transportation impacts on residential communities, mode choice, regional business (downtown or suburban), peak and off-peak travel times, noise, safety, parking and pedestrians. A course project requires students to develop an application of analysis software to

a case study area. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5613 - Traffic Flow Theory and Fundamentals

Emphasizes the mathematical and probabilistic aspects of traffic flows on interrupted (signalized) and uninterrupted (unsignalized) roadways. The course examines the properties of vehicle motion in traffic streams, and then examines the traffic interactions affected by the relationship between supply (signal timings and road designs) and demand (vehicle arrival rates and traffic patterns). Both macroscopic and microscopic models of traffic flow characteristics are presented, as well as queuing models and statistical distributions of headways. Prereq: CVEN 5611 and CVEN 5621 or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5621 - Highway Capacity Analysis

Covers the principles and applications of highway capacity analysis for freeways and arterials, ramps and interchanges, weave and merge sections, signalized and unsignalized intersections, roundabouts, pedestrian areas and transit. Emphasis is on level-of-service analysis procedures in the Highway Capacity Manual, although other approaches are also discussed. Additional topics include roadway characteristics, vehicle dynamics, human factors, speed and volume studies, travel time surveys and traffic flow characteristics. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5622 - Traffic Operations and Control

Covers principles of traffic flow and analysis methods for surface street traffic systems. Emphasis is on network modeling and simulation of coordinated signal systems, together with unsignalized intersections and freeway junctions using modern software tools. Additional topics include alternative signal timing plans, signal controllers, vehicle detection systems for volume, speed, occupancy and ramp metering. A course project requires students to develop and apply modeling software to a case study area. Prereq: CVEN 5621 or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5631 - Transportation Planning Methods

Introduces the urban transportation planning process as conducted by metropolitan planning organizations throughout the U.S. Course covers the four-step modeling process (trip generation, trip distribution, mode split and assignment). Topics also include data needs, survey methods, and statistical models for origin-destination estimation and travel demand forecasting. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5632 - Urban Transportation Modeling

An advanced coverage of urban and regional transportation planning models, procedures and software. Mathematical formulations, properties, and solution algorithms are presented. Additional topics include methods of data acquisition from public domain databases for use in modeling software. A course project requires students to develop an application of modeling software to a case study area. Prereq: CVEN 5631 or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5652 - Airport Planning and Design

National airport system plan, air travel demand, geometric design of airport facilities, design of airport pavement and drainage structures, and airport environmental impact. Prereq: CVEN 3602 and graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5662 - Transportation System Safety

Safety aspects of highway, railroad, and airway transportation systems. Accident analysis, accident prevention, economic consequences of accidents. Prereq: CVEN 3602 and graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5682 - Pavement Design

Design of flexible and rigid pavements for highways and airports; stress analysis in flexible and rigid pavements; design of joints and reinforcing steel for rigid pavements; principles of subgrade stabilization. Prereq: CVEN 3141, 3505, and 3708. **Semester Hours:** 3 to 3

CVEN 5692 - Urban Traffic Workshop

Selected laboratory problems related to urban traffic. Prereq: CVEN 5642 or equivalent. **Semester Hours:** 3 to 3

CVEN 5708 - Advanced Soils Engineering

A unified treatment of the foundation of soil engineering analysis. Topics include stress-strain-strength of soils; generalized limiting equilibrium analysis; stability analyses of earth-retaining structures, slopes, and shallow foundations; probabilistic approach of stability assessment; computation of settlement of foundations in sand and clay and time-rate of consolidation and critical state concept. Special attention is directed toward the illustration of theory through practical examples. Prereq: CVEN 3708, CVEN 4718, and graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5709 - Settlement Analysis

A unified treatment of settlement analysis on sand and clay. Topics include settlement of shallow foundation, settlement of deep foundation, and settlement of embankments, walls and excavations. Conventional methods of analysis and the finite element method of analysis are covered. Critical design implications are emphasized. **Semester Hours:** 3 to 3

CVEN 5718 - Engineering Properties of Soils

Engineering properties of soils, including index properties, permeability, stress-strain behaviors, shear strength, compressibility, critical state soil models and their application in interpreting soil behaviors. Attention also is directed to laboratory and in situ tests to examine the validity of shear strength and compressibility theories and their application to stability and settlement analysis. Prereq: CVEN 3708, CVEN 4718, and graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5719 - Design and Construction of Geosynthetic-Reinforced Soil Structures

Theory of reinforced soil; mechanical and hydraulic properties of geosynthetics; soil-geosynthetic interaction behavior; design concepts of GRS structures; design and construction of GRS retaining walls; design and construction of GRS embankments and slopes; design and construction of GRS foundations. Prereq: CVEN 5708. **Semester Hours:** 3 to 3

CVEN 5728 - Groundwater and Seepage

Principles governing flow of water through soils. Approximate methods for confined and unconfined seepage problems, including flow nets, analog models, numerical methods, and method of finite elements. Analytical solutions for unconfined flow problems. Drainage filter design. Seepage toward wells. Stability of earth structures due to seepage. Prereq: CVEN 3708, CVEN 4718, and graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5738 - Foundation Engineering

Methods of subsurface exploration and sampling of soils, lateral support in open cuts, control of groundwater, analysis and design of shallow foundations, analysis and design of deep foundations, bridge abutments and cofferdams, underpinning, and application of modern computational techniques to analysis and design of foundations. Prereq: CVEN 5708, CVEN 5718, and graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5748 - Design of Earth Embankment Dams

Theory, design, and construction of earth embankments. Use of published data, field exploration, laboratory tests on soils and rock in investigating foundations, and construction materials. Principles of compaction and settlement. Slope stability analysis, landslide, recognition and control, use of benches and beams. Prereq: CVEN 3708, CVEN 4718, and graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5758 - Foundations on Expansive Soils

Expansive soils swell upon wetting because of the swelling nature of constituent clay minerals, particularly montmorillonite. This course studies swelling nature of different clay minerals, effects of wetting, swelling potential, swelling pressures, and design of different foundation systems. Prereq: CVEN 4738, B.S.C.E. or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5768 - Introduction to Rock Engineering

Nature of rock masses, geological exploration, deformability and strength, in situ stresses and deformation, rock hydraulics. Prereq: CVEN 3708, CVEN 4718 and graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5778 - Applied and Experimental Rock Mechanics

Surface exploration and characterization of rock masses, slope stability, analysis of rock masses; rock mass reinforcement; tunnel and shaft designs, design of underground rock chambers; foundations on rocks; and dam design. Prereq: CVEN 5768 or permission of instructor.

Semester Hours: 3 to 3

CVEN 5780 - Engineering Geology

Studies geology as utilized in engineering and environmental practice. Emphasizes a conceptual integration of geologic materials, processes, and rates of change as a basis for successful application of geologic knowledge to environmental planning and engineering design projects. Prereq: MATH 2411 and CVEN 2121. Cross-listed with CVEN 4780 and GEOL 4780/5780.

Semester Hours: 3 to 3

CVEN 5788 - Design and Construction of Municipal Solid Waste Disposal Facilities

NIMBY (Not In My Back Yard) and environmental regulations demand that all landfills receive proper engineering design. This course covers regulations, management (reduction, collection, transportation, transformation, recycling, incineration, disposal), and disposal facility design.

Prereq: Senior in CVEN, B.S.C.E. or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5792 - Energy Resources and Systems for Sustainability

Introduction to energy resources including coal, oil, natural gas, nuclear, hydro, wind, solar, biomass and geothermal. Resource utilization in power systems incorporating issues of sustainability, demand trends, pollution and future use. Interdisciplinary presentation of engineering, physical science, and economic principles. Prereq: Physics, Engineering Mechanics.

Semester Hours: 3 to 3

CVEN 5798 - Dynamics of Soils and Foundations

Principles of vibrations of, and wave propagation in, elastic, homogeneous, isotropic media; laboratory and in situ measurements of soil properties; applications of these principles and properties to the design of foundations subject to dynamic loading generated by machinery, earthquakes, or blasts. Prereq: CVEN 5708, 5718, and graduate standing or permission of instructor. **Semester Hours:** 3 to 3

CVEN 5800 - Special Topics

Topical courses offered once or on irregular intervals. Typical topics include: computer-aided structural engineering, pre-stressed concrete, non-matrix structural analysis, geotechnical aspects of hazardous waste management, geographic information system **Semester Hours:** 1 to 6

CVEN 5835 - Advanced Timber Structure Design

Design of wood framing systems including beams, columns, trusses, and diaphragms. Wood as a material, framing terminology, connection design, structural composite lumber, glued-laminated members, and plywood are covered. The course will emphasize on preparing students for a career in structural engineering. Prereq: CVEN 3505, Structural Analysis. **Semester**

Hours: 3 to 3

CVEN 5840 - Independent Study: CVEN

Available only through approval of the graduate advisor. Subjects arranged to fit needs of particular student. **Semester Hours:** 1 to 6

CVEN 5950 - Master's Thesis

Semester Hours: 1 to 8

CVEN 5960 - Master's Report

Semester Hours: 1 to 8

CVEN 6110 - PhD Seminar

Introduces PhD students to the process of doctoral research, addresses important milestones and hurdles in the PhD process, and provides advanced doctoral students with the opportunity for presenting and discussing their research with peers. Prereq: Admission to the PhD program.

Semester Hours: 0 to 0

CVEN 6111 - Dynamics of Structures

Linear and nonlinear dynamic matrix analysis of multi-degree-of-freedom structural systems. Analysis and design for wind and earthquake loads including modal analysis and sub structuring techniques. Computer programming. Prereq: CVEN 5111. **Semester Hours:** 3 to 3

CVEN 6131 - Theory of Elasticity

Mathematical theory of elasticity and its applications to engineering problems. Discussion of the basic analytical and numerical methods of solutions. Prereq: CVEN 5121. **Semester Hours:** 3 to 3

CVEN 6165 - Buckling in Structures

Buckling of columns, beams, frames, plates, and shells in the elastic and plastic range. Post-buckling strength of plates. Beam-columns. Analysis by exact and approximate methods with special emphasis on practical implications and application of solutions. Prereq: CVEN 3121.

Semester Hours: 3 to 3

CVEN 6336 - Urban Flood Control System Design

This course covers urbanization impact on watershed regime, flood control measures, detention and retention system, infiltration basin, sand filter, water quality control basin, wetland preservation, storm water Best Management Practices, low impact development, outlet structure design, pond safety, stream restoration, overflow risk analysis and optimal operation. Prereq: CVEN 5333, 5343 and graduate standing. **Semester Hours:** 3 to 3

CVEN 6353 - Hydraulic Design

Design of small dams, including reservoir sizing, spillways, and energy dissipaters. Design of urban drainage and flood control facilities such as culvert transitions, roadside ditches, street inlets, detention/retention ponds, storm sewer systems, drainage channels, and channel erosion controls including vegetation, concrete, riprap protection. Design of flood plain encroachment, natural channel improvement, and bridge hydraulics. Prereq: CVEN 5333 and 5343. **Semester Hours:** 3 to 3

CVEN 6515 - Advanced Theory of Structures

Generalized approaches to the analysis of civil engineering and continuous elastic structures (such as plates and plane stress bodies) by force and displacement methods. Emphasis is on formulation by finite elements and solution by matrix methods. Prereq: CVEN 5515 and basic knowledge of computer programming. **Semester Hours:** 3 to 3

CVEN 6738 - Finite Element Method in Geotechnical Engineering

Topics covered include: review of finite element methods, advantages and limitation of FEM for analysis of geotechnical engineering problems, one- and two-dimensional seepage analysis, consolidation analysis, incremental and iterative procedures in nonlinear analysis, no-tension analysis, simulation of construction sequence, simulation of soil behavior, simulation of interface behavior, and load-displacement analysis of earth structures. Prereq: CVEN 5708 and 5515 or consent of instructor. **Semester Hours:** 3 to 3

CVEN 6840 - Independent Study

Semester Hours: 1 to 6

CVEN 7800 - Special Topics

Credit and subject matter to be arranged. Prereq: Variable. **Semester Hours:** 1 to 6

CVEN 7801 - Special Topics

Semester Hours: 1 to 6

CVEN 7840 - Independent Study

Available only through approval of the graduate advisor. Subjects arranged to fit needs of particular student. **Semester Hours:** 1 to 3

CVEN 7990 - Doctoral Dissertation

Semester Hours: 1 to 10

CVEN 8990 - Doctoral Dissertation

Semester Hours: 1 to 10

Decision Sciences For Business Courses (DSCI)

DSCI 2010 - Business Statistics

Basic principles of probability and statistics with applications in business. Includes descriptive statistics, probability and probability distributions, data collection, sampling distributions, statistical inference, simple regression and the use of a computer to perform statistical analysis. Students are required to present their analyses in written and/or oral form and defend their conclusions. This is a business core course. Therefore a grade of a 'C' or better must be earned to satisfy Business graduation requirements and prerequisites for other business courses. Prereq: MATH 1070, MATH 1080, and computer literacy (working knowledge of basic operating system and file manipulation commands, email, the world-wide web, a word processing package and spreadsheets). **Semester Hours:** 3 to 3

DSCI 3000 - Operations Management

Introduces the concepts and methods commonly used in manufacturing and service operations. Topics include aggregate planning, inventory control, scheduling, quality control, and linear programming. This is a business core course. Therefore a grade of a 'C' **Semester Hours:** 3 to 3
When Offered: *FASPRSUM*

DSCI 3780 - Supply Chain Management

Over the last decade businesses have started to understand how the design and operation of their supplier network can be a source of competitive advantage. Supply chain management is concerned with the activities around communication, managing inventory, **Semester Hours:** 3 to 3

DSCI 4840 - Independent Study

Semester Hours: 3 to 3

DSCI 4950 - Special Topics in Decision Sciences

Courses offered on an irregular basis for the purpose of presenting new subject matter in Decision Sciences. Prereq: Will vary depending upon the particular topic and instructor.
Semester Hours: 3 to 3

DSCI 5939 - Internship

Semester Hours: 1 to 3

DSCI 6010 - Deterministic Models

Seldom offered. Linear programming and its application, network analysis, including scheduling models, dynamic programming, integer programming, non-linear programming. Prereq: BUSN 6530 and 6630. **Semester Hours:** 3 to 3

DSCI 6020 - Stochastic Models

Seldom offered. A variety of stochastic models and their application are discussed. Simulation modeling and analysis is emphasized as an approach for addressing such problems. Prereq: BUSN 6530 and 6630. **Semester Hours:** 3 to 3

DSCI 6230 - Business Forecasting

Uses modern forecasting methods applied to marketing, finance, accounting, human resources management and supply chain and production management decision-making. This course focuses on practical applications of forecasting techniques, choosing and comparing **Semester Hours: 3 to 3**

DSCI 6440 - Quality and Process Improvement

Studies the identification, measurement and improvement of quality and the practical management issues related to implementing quality systems within organizations. Topics include historic and contemporary views of quality, statistical quality control too **Semester Hours: 3 to 3**

DSCI 6460 - Decision Analysis

Examines business decision making under conditions of risk and uncertainty using quantitative decision analysis methods such as utility theory, value of information, influence diagrams, decisions with conflicting objectives and hierarchical structured mod **Semester Hours: 3 to 3**

DSCI 6480 - Simulation Modeling

Students learn to model and analyze complex dynamic systems using state-of-the art software such as Arena. Illustrative application areas include production systems, service systems, distribution systems and health care systems. Topics include creating re **Semester Hours: 3 to 3**

DSCI 6600 - Purchasing, Materials Management and Negotiation

Seldom offered. Studies the purchasing function in manufacturing, service and public organizations. Topics include: course selection, make-buy analysis, material quality standards and specifications, value analysis, negotiations, and legal aspects. Prereq: BUSN 6630. **Semester Hours: 3 to 3**

DSCI 6800 - Special Topics

Seldom offered. A number of different current topics in decision sciences are discussed in this course. Consult the current 'Schedule Planner' for semester offerings. Prereq: Permission of instructor. **Semester Hours: 3 to 3**

DSCI 6820 - Project Management

Introduces the knowledge and skills of Project Management (PM) in a business environment. Emphasis will be on the entire project life cycle, the project management process groups and the knowledge areas as presented in the Project Management Body of Knowl **Semester Hours: 3 to 3**

DSCI 6822 - Services Operations

Examines the unique issues involved in the management of service operations. Operations management principles specific to service industries are given in-depth. In addition, simulation is introduced as a technique for studying service industries. Prereq: **Semester Hours: 3 to 3**

DSCI 6826 - Supply Chain Management

Introduces the design, analysis, management, and control of supply chains. Because of continuing advances in globalization, sustainability, and information technology, course emphasis will include integration of processes and systems, relationship manage **Semester Hours:** 3 to 3

DSCI 6828 - Data Mining: Predictive Modeling

Addresses statistical approaches to the very large data sets increasingly common in business applications such as internet-based business, fraud detection, credit scoring and market segmentation. Topics include line-limitations of classical statistical wh **Semester Hours:** 3 to 3

DSCI 6838 - VBA For Decision Sciences

This course teaches the essentials of Visual Basic for Applications (VBA), the programming language for Microsoft Office. The focus is using VBA as a tool to automate common tasks and to create decision science applications. The goal is to hide the details of decision science techniques by creating user interfaces for inputs and then presenting managerially relevant results. Prereq: BUSN 6630. **Semester Hours:** 3 to 3

DSCI 6840 - Independent Study

Instructor approval is required. Allowed only under special and unusual circumstances. Regularly scheduled courses cannot be taken as independent study. **Semester Hours:** 1 to 8

DSCI 6910 - Decision Sciences Practicum

Students apply decision science methodologies to a real-life business problem in cooperation with a local Denver organization. Under the supervision of faculty, students engage in problem definition, analysis and solution. Results are presented in oral and written form to the sponsoring organization. Prereq: Permission of instructor. **Semester Hours:** 3 to 3

Doctoral Studies in Education Program Courses (DSEP)

DSEP 6000 - Academic Writing for Doctoral Students

Tailored for graduate students in education. Focuses on techniques for improving academic writing, particularly planning, organizing, drafting, revising, and editing papers, i.e. course assignments, portfolio products, doctoral proposals or dissertation c **Semester Hours:** 1 to 1

DSEP 6010 - APA Conventions in Academic Writing

This workshop, specifically directed to doctoral students, concentrates on practical issues involved in documenting sources and following conventions for other text features using the current Publication Manual of the American Psychological Association an **Semester Hours:** 1 to 1

DSEP 6020 - Advanced Academic Writing for Doctoral Students

This workshop is designed for doctoral students in education. Focuses on practical strategies for managing, organizing, revising and editing academic papers, especially complex writing projects such as dissertation proposals and dissertation chapters. Pr **Semester Hours:** 1 to 1

DSEP 6994 - Introduction to Academic Discourse

Designed to be taken prior to beginning the doctoral program. Discusses the process of writing-emphasizing reading research articles critically with a focus on selecting and organizing sources into a review, developing a conceptual framework, and identify **Semester Hours:** 3 to 3

DSEP 7010 - Dissertation Planning and Design

Provides doctoral students with conceptual, methodological, and social support during the early stages of the doctoral dissertation. Course content and discussion focuses on the first three chapters of the dissertation, including: posing research question **Semester Hours:** 3 to 3

DSEP 7100 - Leadership in Education

Orients students to broad periods of administrative science, philosophical and behavioral underpinnings of various models and types of leadership, and develops doctoral-level analysis and writing skills to articulate self-knowledge as leader and the appli **Semester Hours:** 3 to 3

DSEP 7200 - Administrative Leadership and Values Appraisals

Examines the core values underlying the program in education administration: value development in individuals as they relate to the purpose of public schooling in today's society. Prereq: permission of instructor. **Semester Hours:** 1 to 6

DSEP 7210 - Education Policy Making in a Democratic Society

Provides students with relevant theories, research, and practice related to administrative policy making educational organizations. Focuses on ways of thinking about societal and schooling tensions, and includes a focus on governance, planning, community **Semester Hours:** 1 to 6

DSEP 7220 - Leadership and Power

Part of a planned sequence of experiences for a cohort group of advanced doctoral students preparing for careers as senior policy administrators in education. Prereq: permission of instructor. **Semester Hours:** 3 to 3

DSEP 7230 - Organizational Performance In Educational Contexts

Explores connections between organizational behaviors and outcomes as well as external and internal factors influencing organizational behavior. The course focuses on how education organizations learn, how they can use that learning to improve performance **Semester Hours:** 1 to 6

DSEP 7240 - Problems/Practices in Integrated Services

Examines the specific systems at local, state, and national levels that provide services and support for children, youth, and families including the regulatory and statutory criteria for program administration and funding, the nature and scope of services **Semester Hours:** 3 to 3

DSEP 7250 - Nature of Work in Schools

Policies and educational reforms affecting the technical core of schooling: curriculum, teaching, learning, assessment, and organization. Students develop research and policy analysis skills and investigate social and political factors affecting what is taught **Semester Hours:** 3 to 3

DSEP 7260 - Managing Integrated Services

Examines the dynamics of managing public policies and programs that support integrated services for children and families. Course focuses on managerial skills needed in a complex, multi-disciplinary setting. Course examines federal, state, and local government **Semester Hours:** 3 to 3

DSEP 7300 - Individual and Organizational Change

Covers theory and practice of psychological change as this change relates to systems and individuals within organizations. Addresses the knowledge, understanding, and application of the change process. Prereq: permission of instructor. **Semester Hours:** 3 to 3

DSEP 7400 - Epistemologies: Ways of Knowing, Research Paradigms, & Counter-Epistemologies

Epistemologies addresses conceptions and approaches to ways of knowing including intellectual traditions and their history as well as epistemological counter-stories of marginalized and subaltern ways of knowing that expose the contingency and bias of dominant **Semester Hours:** 3 to 3

DSEP 7410 - Power and Privilege: The Social Construction of Difference

This course will focus on understanding culture and diversity, recognizing the role of power and privilege in both individual and institutional interactions, and developing a philosophy of social justice and equity. Prereq: Doctoral Student Status. **Semester Hours:** 3 to 3

DSEP 7420 - Foundations of Education in Urban and Diverse Communities

This course focuses on the complex relationship between schools and the larger society of which they are a part. It emphasizes historical, political, and sociological perspectives as we explore the large questions about why we have public schools and exa **Semester Hours: 3 to 3**

DSEP 7430 - Working with Families and Communities

Designed for veteran and novice teachers and administrators to add to their present understanding of the function of families and communities in contemporary society. Participants examine key theoretical texts of important scholars in the field of human **Semester Hours: 3 to 3**

DSEP 7500 - Strategic Human Capital Development

This course focuses on understanding and leveraging the personnel function of an educational organization. You will learn how to strategically align and maximize your human capital with organizational strategic objectives. Cross-listed with EDUC 7500. **Semester Hours: 3 to 3**

DSEP 7510 - Strategic Organizational Management

An effective partnership between the board, community and institutional leader is essential to fulfilling the mission of an educational organization. This course examines the importance of strategic visioning, strategic planning, and specific communicati **Semester Hours: 3 to 3**

DSEP 7520 - Strategic System Improvement

The fundamental purpose of educational organizations (schools, districts, community colleges, higher education, non-profits) is to ensure high levels of learning for all. This course addresses topics such as data development and management, accountab **Semester Hours: 3 to 3**

DSEP 7700 - Doctoral Pro Seminar

First semester students in DSEP are introduced to the faculty and the elements of the program. Prereq: admission to the Ph.D. program. **Semester Hours: 1 to 1**

DSEP 7710 - Theoretical Bases of Instructional Technology

Seminar on the theoretical foundations of the field of instructional technology, including behavioral, cognitive, and systems theories. Prereq: acceptance into the doctoral program. **Semester Hours: 3 to 3**

DSEP 7711 - Curriculum Reform in a Democracy

Students address major themes in curriculum improvement. Prereq: permission of instructor. **Semester Hours: 3 to 3**

DSEP 7712 - Seminar: Learning Theory and Learners

Students apply major issues from learning theories and development to problems of practice related to educational leadership and innovation. Prereq: EPSY 5110 or 5220 or (recommended: EPSY 5100, 5140 or 6000). **Semester Hours: 3 to 3**

DSEP 7830 - Special Topics

Special topics that reflect current research and scholarly exploration of leadership and innovation. **Semester Hours:** 1 to 6

DSEP 7833 - Culture and Critical Theory

Provides an introduction to critical inquiry. General topics include: the development and of the concept of culture, the development and application of critical theory, critical race theory and critical pedagogy. Through the course, students are guided to **Semester Hours:** 3 to 3

DSEP 7834 - Divergent Scholarly Work on Identity & Voice

This seminar is to prepare individuals to integrate theoretical and practical knowledge by cultivating habits of analysis, inquiry and judgment. Students formulate ways of constructing voice for their own individual sense of identity as a leader and innov **Semester Hours:** 3 to 3

DSEP 7840 - Independent Study: DSEP

Semester Hours: 1 to 4

DSEP 7930 - Doctoral Internship: Aspiring

This internship provides students with an opportunity to apply coursework to real life situations, work with a mentor/professional colleague, and refine and/or reconstruct ideas of theories of student interest. **Semester Hours:** 3 to 3

DSEP 7931 - Doctoral Internship: Complementary

In this internship students apply their academic preparation, experience, and interests to curriculum development, instructional models, policy development, and/or leadership/supervision activities. **Semester Hours:** 3 to 3

DSEP 8994 - Doctoral Dissertation

Doctoral dissertation coursework toward the completion of a EdD or PhD degree in Education. **Semester Hours:** 1 to 10

Design & Planning Courses (DSPL)

DSPL 7011 - Research Design

Students are provided with a 'hands on' understanding of methodological issues to become both intelligent consumers of social science research and competent producers of empirically based knowledge. The course moves through the research process covering hypothesis formulation, research design, data collection, measurement, and some fundamentals of statistical inference. Prereq: Admission to the PhD program in Design and Planning or permission of instructor.

Semester Hours: 3 to 3

DSPL 7012 - Theories of Planning

Examines theories of planning and problems of plan implementation. Review and assesses a range of theories of intervention - market imperfections, political economy, regulations, community, rationality, and communication - relying on examples from students research as well as case studies developed by students. Prereq: Admission to the PhD program in Design and Planning or permission of instructor. **Semester Hours:** 3 to 3

DSPL 7013 - Environment and Behavior

Explores contributions of social research to understanding what facilitates and motivates people's adoption of sustainable environmental behaviors. It examines personal and collective behaviors, at scales that range from buildings to global environmental change, in the developed and developing world. Prereq: Admission to the PhD program in Design and Planning or permission of instructor. **Semester Hours:** 3 to 3

DSPL 7014 - Colloquium

Presentations of research projects by students, college faculty members and visitors. **Semester Hours:** 1 to 1

DSPL 7015 - Historiography and Architecture

Advanced seminar concerning the study of the written record of the past and how it is established. Readings focus on canonic texts formative to the discipline and the strategies they offer for historical research. Prereq: "Course is offered to doctoral students but masters students may enroll with instructor approval." **Semester Hours:** 3 to 3

DSPL 7016 - Architecture, in Theory

Explores theories and texts that have influenced the analysis and the production of architectural form. The focus is on the expressive potential of architectural forms and the modalities of the realization of this potential. Prereq: "Course is offered to doctoral students but masters students may enroll with instructor approval." Cross-listed with ARCH 6254. **Semester Hours:** 3 to 3

DSPL 7017 - Pro-Seminar

Advanced, graduate-level course (seminar, independent-study, or other) addressing the history of architecture, landscape, or urbanism. Prereq: "Course is offered to doctoral students but masters students may enroll with instructor approval." **Semester Hours:** 3 to 3

DSPL 7686 - Special Topics in Design and Planning

Various topical areas in design and planning are studied, including those in history, theory, methods, and practice. **Semester Hours:** 1 to 3

DSPL 7840 - Independent Study: DSPL

Studies initiated by students or faculty and sponsored by a faculty member to investigate a special topic or problem related to design and planning. Prereq: Permission of instructor.

Semester Hours: 1 to 3

DSPL 7950 - Doctoral Thesis Research

Conducting research for doctoral dissertation, including data collection, analysis and presentation of findings. Prereq: Completion of core of PhD program. **Semester Hours:** 3 to 10

Early Childhood Education Courses (ECED)

ECED 4410 - Foundation & Organization Of Coaching

This course will train early childhood coaches using material from research-based sources and program experiences. Participants will learn best practices in coaching early childhood and develop a systematic, individualized approach to effective coaching. **Semester Hours:** 3 to 3

ECED 4420 - Connecting Awareness With Application & Deepening Of Practice

This course will identify effective ongoing support strategies for individuals providing coaching. Participants will integrate skills from ECED 5410 with effective application in real life coaching experiences. Prereq: ECED 4410 or instructor permission **Semester Hours:** 3 to 3

ECED 4430 - Attuning For Personal And Organizational Change

This course is designed to support the coach in creating a social learning climate where a synergy of shared learning and reflective dialogue about practice are examined, analyzed and refined. Prereq: ECED 4410 & 4420 or instructor permission. Cross-li **Semester Hours:** 3 to 3

ECED 5000 - The Early Childhood Profession

The first in the required sequence of early childhood courses. It provides an overview of the early childhood profession and philosophical, historical, and legal foundations of services to young children and their families. State and national standards fo **Semester Hours:** 1 to 1

ECED 5010 - Curriculum and Program Development in Early Childhood Education

Review of principles of early childhood curriculum and program development. Linkages are made between theoretical bases of development and curriculum planning. Curriculum areas considered include language, pre-academics, motor, social-emotional, science, **Semester Hours:** 3 to 3

ECED 5020 - Approaches to Young Children's Learning

Review of approaches for facilitating the learning and development of young children. Examined are programs for children from infancy through age eight. Approaches are considered in terms of (1) their differing views of intellectual, social, and physical **Semester Hours:** 3 to 3

ECED 5030 - Directing Programs for Young Children

Analysis of organizational factors and instructional events in the classroom, facilitation of teacher effectiveness through supervisory feedback and in-service development. Special attention is given to supervisor or teacher relationships, parent-school-c **Semester Hours:** 3 to 3

ECED 5040 - Administrative Seminar

Emphasis on those topics required of administrators and collaborator or consultants for early childhood socially inclusive classrooms or programs, such as philosophy, finance, programming, management, community or parent relations, supervision, ethical is **Semester Hours:** 3 to 3

ECED 5060 - Working with Parents and Families

Review of historical factors and research related to current trends in working with parents and families of children with or without disabilities. The course presents content concerning family systems theory, various community services available to families. **Semester Hours:** 3 to 3

ECED 5070 - Social Competence & Classroom Supports

Focuses on the cognitive and social development of infants and young children and problems that may occur during the process. Emphasizes intervention approaches for preschool children with cognitive and social-emotional disabilities. Implications for intervention. **Semester Hours:** 3 to 3

ECED 5080 - Language and Literacy in Young Children

Overview of normal language and literacy development through age 5, language components and pertinent research relating to language and literacy acquisition. Emphasis is placed on language only disorders commonly demonstrated by young children with disabilities. **Semester Hours:** 3 to 3

ECED 5090 - Neuromotor Development and Disorders in Young Children

Provides an overview of normal and abnormal motor and neurological development in the infant and young child. Current treatment approaches for children with neuromotor disorders are examined, with emphasis on sensory integration and neuro-developmental treatment. **Semester Hours:** 3 to 3

ECED 5102 - Introduction to Developmentally Appropriate Curriculum

Introduces developmentally appropriate curriculum and instructional practices in early education and the elementary grades. Subject areas considered include literacy, language arts; mathematics, computers, blocks; science, outdoor education; social studies. **Semester Hours:** 1 to 3

ECED 5104 - Advanced Developmentally Appropriate Curriculum

Extends earlier learning about developmentally appropriate curriculum and instructional practices in early education and the elementary grades. Students elaborate their knowledge of subject area materials and activities. A curriculum unit that is developed. **Semester Hours:** 1 to 3

ECED 5140 - Measurement and Evaluation in Early Childhood Education

Provides classroom experience in basic measurement concepts and in the screening and assessment of young children's cognitive, affective, language, and psychomotor capabilities and characteristics. Traditional measurement techniques as well as non-reactive. **Semester Hours:** 3 to 3

ECED 5200 - Screening and Assessment of Young Children

Provides experience in the administration and scoring of a sample of screening and assessment instruments designed for use with infants and in preschool classrooms. Students administer a variety of formal and informal measures including screening, evaluation, play-based and curriculum-based measures. Cross-listed with ECED 7500. **Semester Hours:** 3 to 3

ECED 5202 - Classroom Management to Promote Positive Behavior

Evidence-based classroom management strategies to promote social competence and reduce behavior problems. Includes strategies for responding to challenging behavior and developing individualized behavior support plans. Explores factors that influence the **Semester Hours:** 3 to 3

ECED 5204 - Early Childhood Mental Health

Addresses the role of the early childhood practitioner in supporting young children emotional well-being and mental health. Topics include mental health disturbances or disorders of infancy or childhood, assessment of social or emotional development and b **Semester Hours:** 3 to 3

ECED 5410 - Foundation & Organization Of Coaching

This course will train early childhood coaches using material from research-based sources and program experiences. Participants will learn best practices in coaching early childhood and develop a systematic, individualized approach to effective coaching. **Semester Hours:** 3 to 3

ECED 5420 - Connecting Awareness With Application & Deepening Of Practice

This course will identify effective ongoing support strategies for individuals providing coaching. Participants will integrate skills from ECED 5410 with effective application in real life coaching experiences. Prereq: ECED 5410 or instructor permissio **Semester Hours:** 3 to 3

ECED 5430 - Attuning For Personal And Organizational Change

This course is designed to support the coach in creating a social learning climate where a synergy of shared learning and reflective dialogue about practice are examined, analyzed and refined. Prereq: ECED 5410 & 5420 or instructor permission. Cross-li **Semester Hours:** 3 to 3

ECED 5800 - Workshop: Topics in Early Childhood Education

Topics and credit hours vary from semester to semester. **Semester Hours:** 1 to 4

ECED 5810 - Global Education and Developmental Studies

The purpose of the Global Education and Developmental Studies (GEDS) course is to identify and build on national and international perspectives and understandings about young children and early childhood intervention. **Semester Hours:** 3 to 3

ECED 5840 - Independent Study

Semester Hours: 1 to 4

ECED 5911 - Educational and Observational Practicum in Early Childhood Education

Includes planned experiences built around the clinic and ECED classroom in operation. Students observe in public schools, Head Start, childcare, and private preschool programs. The practicum requires 30 to 40 clock hours of field placement experience with **Semester Hours:** 3 to 3

ECED 5920 - Readings in Early Childhood Education

Semester Hours: 1 to 4

ECED 6010 - Literacy and Mathematics K-2

Principles of early reading and mathematical development for grades K-2. Linkages are made between child development, learning expectations for mathematics, reading and writing and curriculum planning. Diverse instructional strategies and differentiation **Semester Hours:** 3 to 3

ECED 6100 - Medical and Physiological Aspects of Developmental Disabilities

Presents neurological or physiological development and disorders, as well as appropriate intervention techniques for the young child. Also considered are developmental issues and concerns related to medically fragile young children. **Semester Hours:** 3 to 3

ECED 6110 - Intervention Strategies for Children with Disabilities and At-Risk Infants

An in-depth study of intervention strategies, curricula, and program models for young children, birth to three years. Topics include selection, implementation, and evaluation of the different techniques. The course has an interdisciplinary focus. **Semester Hours:** 3 to 3

ECED 6200 - Early Intervention Strategies

Explores current research, knowledge, and skills related to early intervention policies, teaching strategies, and service delivery. Emphasizes infant and preschool service delivery options such as home, center or community-based programming, and social integration programming techniques. Cross-listed with ECED 7200. **Semester Hours:** 3 to 3

ECED 6600 - Seminar: Early Childhood Education Practices and Issues

Current practices and issues in early childhood and primary education are reviewed, then certain topics are considered in-depth. Emphasis is on issues and problems of practice and care setting in early childhood education and primary grades. **Semester Hours:** 3 to 3

ECED 6690 - Seminar: Research and Current Issues in Early Childhood Education

Research methods are reviewed and then selected topics are considered. Emphasis is on research findings and current issues of importance to teachers, administrators, specialists, collaborator/consultants, and researchers in early childhood and early child **Semester Hours:** 3 to 3

ECED 6695 - Rsrch Lab:Autism w/in Cltrlly & Lngstclly Dvrse Ppltns

In this cross-disciplinary yearlong research lab, students will work individually or in groups to design, implement, and analyze research questions related to autism within culturally and linguistically diverse populations. Course topics will include auti **Semester Hours:** 1 to 2

ECED 6910 - Infant/Toddler Practicum in ECSE

Field-based experiences in settings for children with disabilities and at-risk infants, toddlers, and their families. The practicum requires a minimum of 85, 170, 255, or 340 clock hours under supervision (for 1,2,3, or 4 credit hours, respectively). **Semester Hours:** 1 to 4

ECED 6911 - Practicum in Early Childhood Education

Field-based experiences in settings for young children (preschool administration, day-care center management, community college teaching, parent program directorship, etc.) that are closely linked to the students' professional goals. Requires a minimum of **Semester Hours:** 1 to 4

ECED 6912 - Preschool Practicum in ECSE

Field-based experiences in settings for young children with disabilities and their families, including school districts and community agencies. The practicum requires a minimum of 85, 170, 255, or 340 clock hours under supervision (for 1,2,3, or 4 credit **Semester Hours:** 1 to 4

ECED 6913 - Practicum in Working with Parents and Families

Provides in-depth, field-based experience in working with families of handicapped and at-risk young children. Settings may include schools, community agencies and hospitals. Requires minimum of 255 clock hours under supervision. Prereq: Permission of inst **Semester Hours:** 3 to 3

ECED 6914 - Primary Practicum in ECSE

Field-based experiences in kindergarten through second grade settings with typically developing children, children with special needs and special education teams. Requires a minimum of 85, 170, 255 or 340 clock hours under supervision (for 1, 2, 3, or 4 c **Semester Hours:** 1 to 4

ECED 6950 - Master's Thesis

Prereq: RSEM 5100, RSEM 5200 and credits in the Early Childhood Education program. **Semester Hours:** 4 to 4

ECED 7000 - Early Childhood Leadership Seminar I

The course is designed to provide an overview of policies, laws, and leadership skills in early childhood. Students will study specific policies and laws influencing (1) services for children with severe challenging behavior and autism, (2) children from **Semester Hours:** 3 to 3

ECED 7002 - Early Childhood Leadership Seminar II

The purpose of the course is to provide scholars with leadership knowledge and skills to implement policies, laws, programs, and systems that support the use of evidence-based practices with young children with disabilities. Prereq: ECED 7000. **Semester Hours:** 3 to 3

ECED 7004 - Early Childhood Leadership Seminar III

The purpose of this seminar is to provide the knowledge and skills to implement evidence-based practices in early childhood settings. This seminar will focus on policies and practices that support implementation, scale-up, and sustainability of evidence b **Semester Hours:** 3 to 3

ECED 7070 - Social Competence & Classroom Supports

Focuses on the cognitive and social development of infants and young children and problems that may occur during the process. Emphasizes intervention approaches for preschool children with cognitive and social-emotional disabilities. Implications for int **Semester Hours:** 3 to 3

ECED 7200 - Early Intervention Strategies

Explores current research, knowledge, and skills related to early intervention policies, teaching strategies, and service delivery. Emphasizes infant and preschool service delivery options such as home, center or community-based programming, and social integration programming techniques. Cross-listed with ECED 6200. **Semester Hours:** 3 to 3

ECED 7500 - Screening and Assessment of Young Children

Provides experience in the administration and scoring of a sample of screening and assessment instruments designed for use with infants and in preschool classrooms. Students administer a variety of formal and informal measures including screening, evaluation, play-based and curriculum-based measures. Cross-listed with ECED 5200. **Semester Hours:** 3 to 3

Economics Courses (ECON)

ECON 1010 - Economics of Social Issues

This course is designed for non-majors. Majors in economics will not receive credit toward departmental degree requirements. The focus of the course is on current issues in the economy, including poverty, social security, airline deregulation, government control of prices, economics of higher education, free trade, race and gender discrimination, unemployment, the role of government, and the national debt. **Semester Hours:** 3 to 3

ECON 1111 - Freshman Seminar

Semester Hours: 1 to 3

ECON 2012 - Principles of Economics: Macroeconomics

Covers topics of inflation, unemployment, national income, growth and problems of the national economy, stabilization policy, plus others at the discretion of the instructor. Purpose is to teach fundamental principles, to open the field of economics in the way most helpful to further a more detailed study of special problems, and to give those not intending to specialize in the subject an outline of the general principles of economics. **Semester Hours:** 3 to 3

ECON 2022 - Principles of Economics: Microeconomics

Topics include price determination in a market system composed of households and firms: resource allocation and efficiency of various market structures, plus others at the discretion of the instructor. Note: Complementary to and normally taken following ECON 2012. ECON 2012 is not a prerequisite for ECON 2022. **Semester Hours:** 3 to 3

ECON 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 1 to 3

ECON 3100 - Economics of Race and Gender

Overview of the determinants of wages, employment and education in the labor market. Emphasizes the investigation of the evidence and theories of differentials that appear to be associated solely with race and sex, and public policies associated with discrimination and poverty. Prereq: ECON 2022. **Semester Hours:** 3 to 3

ECON 3300 - Economics of Crime and Punishment

Presents the economic approach to crime. Teaches economic reasoning in the analysis of the determinants of criminal activity, provides an in-depth analysis of the importance of socioeconomic factors in determining crime. Investigates the relative importance of labor market conditions, deterrence, and other factors in the level of criminal activity. Also covers topics to reduce crime such as, the death penalty, issues around victimless crime and public choices. Prereq: ECON 2022. **Semester Hours:** 3 to 3

ECON 3366 - Managerial Economics

Presents the basic core of economic theory and its use for sound managerial decision making. Emphasis on the practical applications of the concepts learned in economics to the resolution of everyday problems. Prereq: ECON 2012 and 2022. **Semester Hours:** 3 to 3

ECON 3400 - Economics of Sex and Drugs

Examines the political and policy issues surrounding controversial topics in human behavior. Economic models and reasoning are applied to examine issues such as juvenile substance use and abuse, and teen pregnancy. Prereq: ECON 2022. **Semester Hours:** 3 to 3

ECON 3801 - Introduction to Mathematical Economics

Introduces the use of mathematics in micro- and macro-economic analysis. Emphasis on model-building techniques, solution methods, and economic interpretations. Prereq: MATH 1110 or MATH 1130 (or equivalent), ECON 2012 and ECON 2022. **Semester Hours:** 3 to 3

ECON 3811 - Statistics with Computer Applications

Introduces statistical methods and their application to quantitative problems in economics and social sciences. Note: Recitation is required. Prereq: College algebra, ECON 2012 and 2022. **Semester Hours:** 4 to 4

ECON 3939 - Internship

Designed experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

ECON 4001 - Topics in Economics

Studies special topics in economics to be selected by the instructor. Note: May be repeated for credit when topics vary. **Semester Hours:** 3 to 3

ECON 4030 - Data Analysis with SAS

Covers techniques for handling and interpreting economic data and conducting econometric analyses using SAS programming. Provides hands-on data management and analyses with large data sets with applications to business and economics, and prepare students for SAS Base Programmer certification exam. Prereq: ECON 3811 or equivalent. Cross-listed with ECON 5030. **Semester Hours:** 3 to 3

ECON 4050 - Special Economic Problems

Provides students the opportunity to critically evaluate some practical and theoretical problems under supervision, and to present results of their thinking to fellow students and instructors for critical evaluation. Prereq: ECON 2012 and ECON 2022. Note: ECON 4050 for majors in economics, others by permission of instructor. Cross-listed with ECON 5050. **Semester Hours:** 1 to 8

ECON 4071 - Intermediate Microeconomic Theory

Production, price and distribution theory. Study of value and distribution theories under conditions of varying market structures, with special references to the contribution of modern theorists. Prereq: ECON 2012, 2022 and 3801. **Semester Hours:** 3 to 3

ECON 4081 - Intermediate Macroeconomic Theory

National income and employment theory. Primary emphasis placed on determination of employment and prices. Problems of unemployment and inflation analyzed and appropriate policies considered. Prereq: ECON 2012, 2022 and 3801. **Semester Hours:** 3 to 3

ECON 4091 - History of Economic Thought

Traces the development of economic thought from ancient times to the 20th century. Considers the context in which these ideas were developed and their relationship to modern economic thought and contemporary economic problems. Prereq: ECON 2012 and ECON 2022. Cross-listed with ECON 5090. **Semester Hours:** 3 to 3

ECON 4101 - Applied Statistics Using SAS and SPSS I

Teaches the practical statistical tools social scientists use to analyze real-world problems. Split into four modules, each taught by a different instructor. The first module introduces SAS and SPSS; modules 2-4 are problem-based and cover topics such as ANOVA, multivariate regression, and cluster analysis. Prereq: Any statistics course. **Semester Hours:** 3 to 3

ECON 4102 - Applied Statistics Using SAS and SPSS II

(Continuation of ECON 4101.) Students use the skills they learned in the previous semester to analyze a social issue of their choosing and present their findings. Note: In addition to lectures, weekly one-on-one meetings between faculty and students are required. Prereq: ECON 4101. **Semester Hours:** 3 to 3

ECON 4110 - Money and Banking

Surveys major monetary and fiscal institutions such as commercial banks, the federal reserve system, savings institutions, and the structure of debt. The relationships between households, firms and financial intermediaries are explored, and the tools available to macroeconomic policy makers are described and evaluated. Prereq: ECON 4081. **Semester Hours:** 3 to 3

ECON 4150 - Economic Forecasting

Teaches forecasting techniques used in business and government to project trends and short-term fluctuations. Actual data are employed in instruction and labs. State-of-the-art spreadsheet and algorithms are introduced as part of the course work. Prereq: Undergraduate statistics or permission of instructor. Cross-listed with ECON 5150. **Semester Hours:** 3 to 3

ECON 4210 - Public Finance

Surveys topics dealing with the economics of government activity, including the provision of public goods; the economics of the political process; welfare programs; pollution externalities; benefit-cost analysis; the U.S. tax structure; and the effects of taxes on economic behavior,

economic performance and the distribution of income. Prereq: ECON 2022. **Semester Hours:** 3 to 3

ECON 4230 - Law and Economics

Applies economic theory to legal decision making. Topics include property law, tort law, contract law, the common law, crime and punishment, comparisons to traditional forms of legal decision making and the economic approach to politics. Prereq: ECON 2022. **Semester Hours:** 3 to 3

ECON 4240 - Economic Policy Analysis

Deals with the application of economic analysis to the government policy-making process. Topics include public goods provision, externalities, cost-benefit analysis, judicial decision making, the economic analysis of the political process, government regulation of business, and tax incidence. Prereq: ECON 2012, 2022 and 3801. **Semester Hours:** 3 to 3

ECON 4310 - Managerial Economics

The course adapts standard theory to more realistically discuss enterprise structure, firm and managerial behavioral incentives, and strategic behavior. Once a foundation is laid, successful and unsuccessful strategies and case studies are presented. Cross-listed with ECON 5310. **Semester Hours:** 3 to 3

ECON 4320 - Financial Economics

This course focuses on the economics of decision-making under conditions of risk and uncertainty. Topics include theories of efficient markets, rational expectations, speculative bubbles, random walks, portfolio analysis, options, derivatives and future markets. Emphasis is on the application of basic theories to economic agents' behavior and case studies. Prereq: ECON 2022, 3811, 3801. Cross-listed with ECON 5320. **Semester Hours:** 3 to 3

ECON 4410 - International Trade

Trade theory identifies who wins and loses from trade and why there are usually overall gains. Explores issues in immigration, globalization, income inequality, tariffs, dumping, the WTO, the environment, wages, and growth strategies among others. Prereq: ECON 2022. Cross-listed with ECON 5410. **Semester Hours:** 3 to 3

ECON 4420 - International Finance

The international adjustment process, including the foreign exchange market, balance of payments disequilibria, price and income adjustment, fiscal and monetary policy, and the international monetary system. Prereq: ECON 2012. **Semester Hours:** 3 to 3

ECON 4430 - Economic Growth

Explores causes of rapid growth or decline over long periods for different regions of the world. Inequality, sustainability, culture, climate, technology and resources all play significant roles. Data and examples are used to determine the important influences. Prereq: ECON 2022 and ECON 3811. **Semester Hours:** 3 to 3

ECON 4530 - Economics of Natural Resources

Examines economic models of renewable resource management and models of exhaustible resource depletion. Analyzes decisions made by private firms and governments affecting the methods and rate of resource development. Examines the effects of resource development on economic growth and environmental quality and the effects of economic development on resource scarcity. Prereq: ECON 2022. Cross-listed with ECON 5530. **Semester Hours:** 3 to 3

ECON 4540 - Environmental Economics

Economic approach to environmental problems: relationship between ownership structures, externalities and environmental damage; poverty, population pressure, and environmental degradation; valuation of environmental amenities; sustainability of economic activity; cost-benefit analysis applied to the environment; evaluation of alternative instruments for environmental control. Prereq: ECON 2022. Cross-listed with ECON 5540. **Semester Hours:** 3 to 3

ECON 4550 - Game Theory and Economic Applications

An introduction to economic applications of game theory. Concepts such as strategic and extensive form games, existence and selection of equilibrium will be covered. These concepts will be applied to understand market structure, location decisions, price competition, contracting, and auctions. Prereq: ECON 4071. **Semester Hours:** 3 to 3

ECON 4610 - Labor Economics

Studies problems associated with the determination of wages, hours, and working conditions in the American economy. Strong emphasis placed on current research in such areas as welfare reform, minimum wage, return to schooling, immigration, labor market discrimination, and trade unions. Prereq: ECON 2012, 2022 and any statistics course. **Semester Hours:** 3 to 3

ECON 4640 - Sports Economics

Applies economic analysis to sports. Explores topics such as competition, on-field performance, players' compensation, profits in professional sports, anti-trust and labor law, the impact of sports on local communities and the links between athletics and education. Prereq: ECON 2022. **Semester Hours:** 3 to 3

ECON 4660 - Health Economics.

This course focuses on the analysis of current health care markets. Topics include the production of health, demand for health care, physician and hospital behavior, health insurance, medical malpractice, health externalities, managed care and the afforda **Semester Hours:** 3 to 3

ECON 4716 - Comparative Economic Systems

Critical examination of capitalism, socialism, communism and alternative systems. Focuses on the comparative study of various countries and the implementation and management of their economic systems. Prereq: ECON 2022. **Semester Hours:** 3 to 3

ECON 4740 - Industrial Organization

Examines the determinants of, and linkages between, market structure, firm conduct, and industrial performance. Topics include: determinants of the market size; impact of different market structures on prices and outputs; strategic behavior of firms to prevent entry or induce exit of rival firms; collusion; price discrimination; advertising; competition, monopoly, and innovation; implications for economic efficiency and public policy. Prereq: ECON 4071. Cross-listed with ECON 5740. **Semester Hours:** 3 to 3

ECON 4770 - Economic Development--Theory and Problems

Introduces theory and practice of economic development. Topics include development and growth models, economic planning, income distribution, human and capital resources, foreign investment and the multinationals, technology transfer, trade and development. Discussions of current issues regarding world debt, economic stabilization, the new protectionism, empirical studies, and examples of development in various countries. Prereq: ECON 2012 or ECON 2022. **Semester Hours:** 3 to 3

ECON 4811 - Introduction to Econometrics

Introduces econometric methods and their applications to quantitative economic problems. Simple and multiple regression models and problems encountered in their applications are developed in lectures and applied computer projects. Prereq: ECON 3811 or equivalent. **Semester Hours:** 3 to 3

ECON 4840 - Independent Study: ECON

Semester Hours: 1 to 3

ECON 4850 - Honors Independent Study: ECON

Semester Hours: 1 to 3

ECON 5030 - Data Analysis with SAS

Covers techniques for handling and interpreting economic data and conducting econometric analyses using SAS programming. Provides hands-on data management and analyses with large data sets with applications to business and economics, and prepare students for SAS Base Programmer certification exam. Prereq: ECON 3811 or equivalent. Cross-listed with ECON 4030. **Semester Hours:** 3 to 3

ECON 5050 - Special Economic Problems

Provides students the opportunity to critically evaluate some practical and theoretical problems under supervision, and to present results of their thinking to fellow students and instructors for critical evaluation. Prereq: Permission of instructor. Cross-listed with ECON 4050. **Semester Hours:** 1 to 8

ECON 5051 - Data Analysis and Research Methodology

Consists of a series of lectures on the nature of conducting research, and discussions of the ways professional economists approach research problems. A review of spreadsheet applications and

statistical packages are conducted. Prereq: ECON 4071 and 4811 or permission of instructor.

Semester Hours: 1.5 to 1.5

ECON 5052 - Data Analysis and Research Methodology II

Develops student skills in data analysis and applications to economic issues and policy evaluation. Hands-on demonstration and student participation in empirical strategies using statistical packages in the social sciences (i.e. SAS). Emphasis on programming, research strategies and interpretation of results. Prereq: ECON 5051 or permission of instructor.

Semester Hours: 1.5 to 1.5

ECON 5073 - Microeconomic Theory

Fundamental features of partial equilibrium theory of the firm, consumer and market. General equilibrium and welfare economic topics are examined. Features of the models that have empirical applications are accented. Prereq: ECON 5803. **Semester Hours:** 3 to 3

ECON 5083 - Macroeconomic Theory

Examines the major macroeconomic models within a common framework. Differences in the foundations, structure, and policy implications of the competing models are analyzed. Prereq: ECON 5803 or permission of the instructor. **Semester Hours:** 3 to 3

ECON 5090 - History of Economic Thought

Traces the development of economic thought from ancient times to the 20th century. Considers the context in which these ideas were developed and their relationship to modern economic thought and contemporary economic problems. Prereq: ECON 2012 and ECON 2022. Cross-listed with ECON 4091. **Semester Hours:** 3 to 3

ECON 5150 - Economic Forecasting

Teaches forecasting techniques used in business and government to project trends and short-term fluctuations. Actual data are employed in instruction and labs. State-of-the-art spreadsheet and algorithms are introduced as part of the course work. Prereq: ECON 3811. Cross-listed with ECON 4150. **Semester Hours:** 3 to 3

ECON 5310 - Managerial Economics

The course adapts standard theory to more realistically discuss enterprise structure, firm and managerial behavioral incentives, and strategic behavior. Once a foundation is laid, successful and unsuccessful strategies and case studies are presented. Cross-listed with ECON 4310.

Semester Hours: 3 to 3

ECON 5320 - Financial Economics

Studies the financial decision making process of individuals and business entities, and the workings of financial institutions. Topics include the essentials of optimal portfolio, financial management, financial innovations, and the globalization of financial markets. Emphasis is on the application of basic theories to economic agents' behavior and the case studies. Prereq: ECON 5073 or permission of instructor. **Semester Hours:** 3 to 3

ECON 5410 - International Trade

Trade theory identifies who wins and loses from trade and why there are usually overall gains. Explores issues in immigration, globalization, income inequality, tariffs, dumping, the WTO, the environment, wages and growth strategies among others. Prereq: ECON 2022. Cross-listed with ECON 4410. **Semester Hours:** 3 to 3

ECON 5530 - Economics of Natural Resources

Examines economic models of renewable resource management and models of exhaustible resource depletion. Analyzes decisions made by private firms and governments affecting the methods and rate of resource development. Examines the effects of resource development on economic growth and environmental quality and the effects of economic development on resource scarcity. Prereq: ECON 5073. Cross-listed with ECON 4530. **Semester Hours:** 3 to 3

ECON 5540 - Environmental Economics

Economic approach to environmental problems: relationship between ownership structures, externalities and environmental damage; poverty, population pressure, and environmental degradation; valuation of environmental amenities; sustainability of economic activity; cost-benefit analysis applied to the environment; evaluation of alternative instruments for environmental control. Prereq: ECON 5073. Cross-listed with ECON 4540. **Semester Hours:** 3 to 3

ECON 5660 - Health Economics

Introduces students to analytical skills and economic methods, and demonstrates how these methods can be applied to issues in health policy and management. Topics include: demand for health and medical care; health care costs, health reform, medical technology; market for health insurance; physicians, hospitals, and managed care; pharmaceuticals; regulations in the U.S. health care sector; demand for addictive substances; infant and maternal health; international comparisons of health care systems. Prereq: Permission of instructor. **Semester Hours:** 3 to 3

ECON 5740 - Industrial Organization

Examines the determinants of, and linkages between, market structure, firm conduct, and industrial performance. Topics include: determinants of the market size; impact of different market structures on prices and outputs; strategic behavior of firms to prevent entry or induce exit of rival firms; collusion; price discrimination; advertising; competition, monopoly, and innovation; implications for economic efficiency and public policy. Prereq: Permission of instructor. Cross-listed with ECON 4740. **Semester Hours:** 3 to 3

ECON 5800 - Special Topics

Current economics topics to be determined by the instructor. Prereq: ECON 3801 or MATH 1401. **Semester Hours:** 1 to 3

ECON 5803 - Mathematical Economics

Introduces the use of mathematics in advanced micro- and macro-economic analysis. Emphasis on model-building techniques, solution methods, and economic interpretations. Prereq: ECON 4071 and 4081. **Semester Hours:** 3 to 3

ECON 5813 - Econometrics I

Theory and application of statistical techniques used to analyze economic problems. Topics include simple and multiple regression models, simultaneous equation models, and the problems encountered in their application. Students formulate models, obtain data, estimate models, interpret results and, forecast. Prereq: ECON 4811 or equivalent. **Semester Hours:** 3 to 3

ECON 5823 - Econometrics II

Second course in the econometrics sequence, covering intermediate topics in cross-section and time series analysis. Topics include limited dependent variables, autoregressive and distributed lag models, longitudinal data analysis and unit roots, co-integration and other time-series topics. Prereq: ECON 5083 and 5813. **Semester Hours:** 3 to 3

ECON 5840 - Independent Study

Semester Hours: 1 to 3

ECON 5939 - Internship

Semester Hours: 1 to 6

ECON 5950 - Master's Thesis

Semester Hours: 1 to 4

ECON 6010 - Advanced Microeconomic Theory

Recent and contemporary literature on fundamentals of economic theory. Consideration of value theory with particular emphasis on methodology, theory of demand, theory of the firm, and theory of distribution. Prereq: ECON 5073. **Semester Hours:** 3 to 3

ECON 6020 - Advanced Macroeconomic Theory

Considers general equilibrium and aggregative analysis in economic theory, with particular emphasis given to the theory of employment, consumption and investment. Prereq: ECON 5083. **Semester Hours:** 3 to 3

ECON 6053 - Seminar In Applied Economics

Familiarizes students with applied research in economics. Students read, discuss, and critique articles in economic journals. Emphasis is placed on research design and methods employed in these articles to prepare students for development of their own research projects in subsequent courses. Topics vary with instructor, and may include international economics, labor economics, monetary theory, public or finance and development economics. Prereq: ECON 5813, 5073, 5083 at the instructor's discretion. **Semester Hours:** 1.5 to 1.5

ECON 6054 - Seminar In Applied Economics II

Familiarizes students with state-of-the-art applied economic research. Students read, discuss, and critique articles published in economic journals. Note: Topics vary with the instructor. Prereq: ECON 5813, 5073, 5083 at the instructor's discretion. **Semester Hours:** 1.5 to 1.5

ECON 6060 - Special Topics

Special topics in advanced microeconomics. Consideration of value theory based upon methodology, theory of demand, and theory of distribution. Prereq: ECON 3801. **Semester Hours:** 1 to 3

ECON 6073 - Research Seminar

Focuses on training students to do rigorous research in economics. Topics include the analysis of large data sets, further development of econometric skills, and writing a research paper. Note: Students attend lectures and also meet regularly with the instructor in the process of doing a sophisticated research project. Prereq: ECON 5823 and 6053. **Semester Hours:** 3 to 3

ECON 6110 - Money and Central Banking

Monetary and financial institutions, with focus on relationships among domestic monetary policy, interactional credit and balance of payments. Prereq: ECON 5083. **Semester Hours:** 3 to 3

ECON 6210 - Public Finance

Advanced economic theory applied to the problems of public and private sector decision making. Applied topics in taxation, education, voting theory, welfare economics, externalities and public goods. Prereq: ECON 5073. **Semester Hours:** 3 to 3

ECON 6410 - International Trade

Contemporary and classical literature on theories of international trade. Topics include the determination of the pattern and terms of trade, the relationship between growth and trade, and commercial policy. Prereq: ECON 5073. **Semester Hours:** 3 to 3

ECON 6420 - International Finance

Topics in international finance, including exchange rate determination, the adjustment process, international financial markets and the international monetary system. Prereq: ECON 5073. **Semester Hours:** 3 to 3

ECON 6610 - Labor Economics

Advanced study of the labor market, including: history, nature, and function of labor organizations; the process of wage determination; and the formation of public policy. Prereq: ECON 5073 and 5813. **Semester Hours:** 3 to 3

ECON 6770 - Economic Growth and Development

Considers the role of planning in economic development, with particular reference to investigation of planning problems, especially in less developed countries. Prereq: ECON 5073 and 5803. **Semester Hours:** 3 to 3

ECON 6801 - Advanced Mathematical Economics

Addresses economic dynamics, formal mathematical modeling in economics, and optimization in economic theory. Prereq: ECON 5803 or permission of instructor. **Semester Hours:** 3 to 3

ECON 6810 - Econometrics and Forecasting

Covers advanced topics in cross-sectional and time-series analysis. Emphasizes important theoretical and empirical issues encountered in applied work in economics and business. Topics include problems of structural change and model misspecification, instrumental variables, simultaneous equations models, distributed lags, maximum likelihood estimation, qualitative and limited dependent variables, Arima models, vector-autoregressions, issues on exogeneity and causality. Through the use of econometric software programs and actual data, students learn to execute estimation and forecasting projects soundly. Prereq: ECON 5813 and 5823.

Semester Hours: 3 to 3

ECON 6840 - Independent Study

Semester Hours: 1 to 3

ECON 6950 - Master's Thesis

Semester Hours: 1 to 6

Educational Foundations Courses (EDFN)

EDFN 1000 - Democracy & Public Schooling

Examines the history of U.S. public schooling through landmark court cases.

Investigates/analyzes how apartheid came to be institutionalized, how forces of desegregation achieved a series of momentous victories, and how those victories have been undermined

Semester Hours: 3 to 3

EDFN 3000 - Undocumented Mexican Immigration

The socio-legal construction of Mexican undocumented immigration from the early decades of the twentieth century to the current era is addressed. Social justice questions including access to higher education arising from the racialization of Latino/a immigrants

Semester Hours: 3 to 3

EDFN 4000 - Food Justice in City & Schools

Food justice examines systemic inequities in access to healthy food. The history of school/community gardens, developments in urban agriculture and school/city policies are examined. The intersection of urban agriculture, hunger, and schooling/learning is

Semester Hours: 3 to 3

EDFN 5000 - Food Justice in City & Schools

Food justice examines systemic inequities in access to healthy food. The history of school/community gardens, developments in urban agriculture and school/city policies are examined. The intersection of urban agriculture, hunger, and schooling/learning is

Semester Hours: 3 to 3

Educational Leadership & Innovation Courses (EDLI)

EDLI 8994 - Doctoral Dissertation PhD

Semester Hours: 1 to 10

Education Administration & Supervision Courses (EDUC)

EDUC 5000 - Special Topics: Administrative Leadership and Policy Studies

Specific topics vary. Focus is on faculty-developed options to standard course offerings to facilitate program development and distance-learning activities. **Semester Hours:** 0.5 to 10

EDUC 5001 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 5002 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 5003 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 5004 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 5005 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 5006 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 5007 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 5008 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 5009 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 5010 - Paraeducator Supervision Academy

Provides the paraeducator with knowledge and skills to work effectively in teams. Paraeducators refine their knowledge of the characteristics of paraprofessionals in education, the distinction between professional and paraprofessional roles and responsibilities. **Semester Hours:** 1 to 1

EDUC 5015 - Developmental Intervention Supervisor Academy (DISA)

Developmental Intervention Supervisor Academy provides early intervention professionals with the knowledge and skills to work effectively in teams and to utilize and supervise Developmental Intervention Assistants (DI Assistant is the title used in Colorado). **Semester Hours:** 1 to 1

EDUC 5020 - Trainers of Paraeducator Academy

Provides the professional educator with the skills to provide effective presentations to paraprofessionals in schools. **Semester Hours:** 1 to 1

EDUC 5025 - Developmental Intervention Trainers Academy (DITA)

Developmental Intervention Trainer Academy (DITA) is offered to early interventional professionals who have completed EDUC 5015 (DISA). DITA provides the participants skills to become effective trainers who deliver training to Developmental Intervention A **Semester Hours: 1 to 1**

EDUC 5030 - Top Cadre of Trainers (TOPCAT) Seminar

Provides CO-TOP Trainers (school professionals who have been through the PSA: EDUC 5010 and TOPA: EDUC 5020) ongoing support in their roles as supervisors and trainers of paraeducators. Through this seminar trainers receive updated information about CO-TO **Semester Hours: 3 to 3**

EDUC 5040 - Mentoring Novice and Pre-Service Teachers

Designed to help participants develop or enhance the skills necessary to successfully work with candidates who are completing teacher education programs. Concentrates on supervision and conference skills, adult learning theory, and communication skills. **Semester Hours: 1 to 1**

EDUC 5050 - Computer Application for Educational Management

Studies the theoretical and applied knowledge of central and school-based administrative educational applications of modern computer technology. **Semester Hours: 3 to 3**

EDUC 5070 - Elementary School Curriculum

An integrating course dealing with the history, development, problems, and practices of the curriculum of the elementary school. **Semester Hours: 3 to 3**

EDUC 5090 - Senior High School Curriculum

This course is concerned with the history, development, principles, problems, practices, and trends of the curriculum of the senior high school. **Semester Hours: 3 to 3**

EDUC 5100 - Curriculum and Program Development and Evaluation

Fundamentals of curriculum and program development, including theoretical foundations of U.S. curriculum, practical criteria to guide decision making, specific models and processes for curriculum or program development and appraisal, emerging issues, prob **Semester Hours: 3 to 3**

EDUC 5400 - Special Education Seminar for Principals

This course is designed for principals and prospective principals to investigate the new leadership responsibilities that are emerging in the delivery of special education at the building level. The course reflects the emerging role of the principal in le **Semester Hours: 3 to 3**

EDUC 5700 - Administrative Leadership in Educational Organizations

Introduces students to key concepts, theories, and research in providing leadership to educational organizations. Special emphasis is placed on the topics of organizational behavior, leadership, culture change and power, as they relate to the administrati **Semester Hours: 1 to 6**

EDUC 5710 - Administering the Environment of Public Schools

A seminar course which focuses on problems and issues in developing an effective school environment. Emphasis is placed upon inter-relationship of law, finance, strategic planning, culture, political governance, and school or community relations. Prereq: **Semester Hours: 1 to 6**

EDUC 5720 - Supervision of the Curricular and Instructional Program of the School

This seminar addresses the supervisory issues involved in administering curricular and instructional programs in schools. Special emphasis is placed upon teacher appraisal, assessment techniques, curriculum design, and instructional effectiveness. Prereq: **Semester Hours: 1 to 6**

EDUC 5730 - Administering the School Improvement Process

A seminar course focusing on problems and issues in developing effective schools. This course builds on concepts from organizational behavior and leadership and orients students toward planning, executing, and assessing school improvement programs. Emphas **Semester Hours: 1 to 6**

EDUC 5751 - Principal/Administrator Licensing I

This program section (1 of 4) combines foundational learning activities in leadership, curriculum and supervision, school improvement, and the school environment via distance learning. Field applications are related to those foundations, and students deve **Semester Hours: 5 to 9**

EDUC 5752 - Principal Administrator Licensing II

This program section (2 of 4) combines advanced learning activities in leadership, curriculum and supervision, school improvement, and the school environment via distance-learning technology that build on the foundational activities in EDUC 5751 with fiel **Semester Hours: 5 to 9**

EDUC 5753 - Principal/Administrator Licensing III

This program section (3 of 4) combines foundational learning activities in leadership, curriculum and supervision, school improvement, and the school environment via distance learning that build on foundational activities in EDUC 5752. Field applications **Semester Hours: 5 to 9**

EDUC 5754 - Principal or Administrator Licensing IV

This program section (4 of 4) combines foundational learning activities in leadership, curriculum and supervision, school improvement, and the school environment via distance learning that build on foundational activities in EDUC 5753. Students complete t **Semester Hours: 5 to 9**

EDUC 5830 - Governance and Administration of Education

Development of governance structures and of administration as a field of study in education. Influence of governance and views of administration on educational organizations' goals, functions, and personnel. **Semester Hours:** 3 to 3

EDUC 5831 - School Law

Recent developments, including administrative implications of significant court decisions for school operations. For superintendents, principals, school board members, prospective administrators, and teachers. **Semester Hours:** 3 to 3

EDUC 5832 - Group Development and Training

Organizational theory and practice for school leadership personnel with emphasis on group and organization development, group problem identification and solutions, conflict management skills and processes, role behaviors and goal setting. **Semester Hours:** 3 to 3

EDUC 5833 - School Business Management

Emphasizes school-site level management. Includes instruction in planning, budgeting, evaluation and management. **Semester Hours:** 3 to 3

EDUC 5834 - Seminar in School Administration

Knowledge and insight about organizational behavior drawing upon education and related social science concepts. **Semester Hours:** 3 to 3

EDUC 5835 - Supervision of Instruction

Studies instructional supervision concepts with practical application. Effective instruction, supervision, and program evaluation in relation to school-wide improvement. Leadership skills in staff development, curriculum development, group development, di **Semester Hours:** 3 to 3

EDUC 5836 - Workshop: Educational Administration, Curriculum and Supervision

Semester Hours: 1 to 4

EDUC 5840 - Independent Study: EDUC

Master's. **Semester Hours:** 1 to 4

EDUC 5930 - Clinical Practice in Administrative Leadership

Prereq: Admission to the program. **Semester Hours:** 1 to 5

EDUC 5931 - Internship in Curriculum

Semester Hours: 1 to 6

EDUC 5950 - Master's Thesis

Semester Hours: 1 to 8

EDUC 6000 - Special Topics: Administrative Leadership and Policy Studies

Specific topics vary; focus is on faculty-developed options to standard course offerings to facilitate program development and distance-learning activities. **Semester Hours:** 1 to 10

EDUC 6001 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 6002 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 6003 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 6004 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 6005 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 6006 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 6007 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 6008 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 6009 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 6010 - Special Topics: Administrative Leadership and Policy Studies

Semester Hours: 1 to 10

EDUC 6101 - Initial Portfolio Analysis for Administrator Licensure

Students work with faculty members to develop a portfolio related to the professional standards of practice for educational administrators. Faculty members review the portfolio and provide an initial analysis for licensure. Prereq: M.A. or certification in educational administration.

Semester Hours: 3 to 3

EDUC 6102 - Initial Portfolio Analysis for Principal Licensure

Students work with faculty members to develop a portfolio related to the professional standards of practice for principals. Faculty members review the portfolio and provide an initial analysis and recommendation for licensure. Prereq: M.A. or certification in educational administration.

Semester Hours: 3 to 3

EDUC 6103 - Portfolio Product Development for Administrative Licensure

Students work with the professor to develop the products needed to ensure compliance with the new state standards for administrative licensure. Prereq: M.A. or certification in educational administration. **Semester Hours:** 1 to 6

EDUC 6104 - Portfolio Product Development for Principal Licensure

Students work with the professor to develop the products needed to ensure compliance with the new state standards for principal licensure. Prereq: M.A. or certification in educational administration. **Semester Hours:** 1 to 6

EDUC 6105 - Portfolio Evaluation for Administrative Licensure

Students work with the professor to conduct a detailed evaluation of portfolios to ensure that they meet the state standards for administrator licensure. The professor assembles a team of faculty and practicing professionals for the evaluation process. Prereq: M.A. or certification in educational administration. **Semester Hours:** 3 to 3

EDUC 6106 - Portfolio Evaluation for Principal Licensure

Students work with the professor to conduct a detailed evaluation of portfolios to ensure that they meet the state standards for principal licensure. The professor assembles a team of faculty and practicing professionals for the evaluation process. Prereq: M.A. or certification in educational administration. **Semester Hours:** 3 to 3

EDUC 6840 - Independent Study

Semester Hours: 1 to 4

EDUC 6930 - Clinical Practice for Administrative Leadership

Semester Hours: 1 to 7

EDUC 6951 - Master's Thesis

Semester Hours: 4 to 4

EDUC 7000 - Special Topics in Administration, Supervision, and Curriculum Development

Semester Hours: 1 to 3

EDUC 7120 - Curriculum of Middle Level School

Deals with the history, development, principles, problems, practices, and trends of the curriculum of the middle level school. **Semester Hours:** 3 to 3

EDUC 7140 - Student Activities Curriculum

Principles, problems, and procedures for improvement of extra class activities, student councils, and home rooms in the secondary school. **Semester Hours:** 3 to 3

EDUC 7150 - Doctoral Seminar in Curricular Theories

An intensive study of current theories of public school curriculum related to trends in actual practices in elementary and secondary schools. **Semester Hours:** 3 to 3

EDUC 7160 - Processes and Materials in Curriculum Appraisal

Designed to provide curriculum workers with skills in the process of assessment of curriculum programs and skill in the appraisal of curriculum materials. **Semester Hours:** 3 to 3

EDUC 7340 - Doctoral Seminar: Problems and Trends in Education

A broad overview of current problems in schools and school systems and consideration of practices and policies in U.S. schools for solution of such problems. Evaluates procedures for solving educational problems. **Semester Hours:** 3 to 3

EDUC 7350 - Elementary Principalship

Two-week in-depth examination of the elementary school principalship. Required for Type D administrative certification, elementary school. Prereq: Permission of instructor. **Semester Hours:** 3 to 3 **When Offered:** *SUMMER*

EDUC 7360 - Administration and Supervision of Elementary School

For administrators and teachers. Purposes, practices, and trends in administration and educational leadership. **Semester Hours:** 3 to 3

EDUC 7370 - Administration and Supervision of Senior High School

Current administrative principles and practices essential to effective organization and management, with emphasis on the educational leadership of the principal. **Semester Hours:** 3 to 3

EDUC 7380 - Doctoral Seminar: Theory of Educational Administration

Studies organizational models, theories, and communication patterns; leadership roles and behavior; and organizational change. Attention to recent research in administrative theory. **Semester Hours:** 3 to 3

EDUC 7400 - Doctoral Seminar in School Finance

For advanced graduate students. Problems of educational finance; theory, practice and control; equalization funds; federal-state-local relations in finance; budgeting; salary schedules; retirement; and school bonds. **Semester Hours:** 3 to 3

EDUC 7410 - Educational Facilities Planning

Determination of school plant needs; relation of educational and architectural services; criteria of adequate school plants, site development, building operation and management; financial problems. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

EDUC 7420 - Personnel Development and Training

Management of human resources in educational organizations. Deals with shared roles between site development, building operation and management; financial problems. **Semester Hours:** 3 to 3

EDUC 7430 - School and Community Relations

Examines interactions of schools and their communities, citizen role or involvement in governance of education, internal and external communication concepts and practices, politics of education, community power and pressure groups, organizational culture **Semester Hours:** 3 to 3

EDUC 7490 - Doctoral Seminar

Semester Hours: 3 to 3

EDUC 7500 - Strategic Human Capital Development

This course focuses on understanding and leveraging the personnel function of an educational organization. You will learn how to strategically align and maximize your human capital with organizational strategic objectives. Cross-listed with DSEP 7500. **Semester Hours:** 3 to 3

EDUC 7510 - Strategic Organizational Management

An effective partnership between the board, community and institutional leader is essential to fulfilling the mission of an educational organization. This course examines the importance of strategic visioning, strategic planning, and specific communication **Semester Hours:** 3 to 3

EDUC 7520 - Strategic System Improvement

The fundamental purpose of educational organizations (schools, districts, community colleges, higher education, non-profits) is to ensure high levels of learning for all. This course addresses topics such as data development and management, accountability **Semester Hours:** 3 to 3

EDUC 7530 - Leadership Development

Successful leaders are able to articulate, protect and promote what is important. This course will examine the challenges of educational leadership and help participants clarify the core values essential to their success as a leader. **Semester Hours:** 3 to 3

EDUC 7560 - Administration and Supervision in the Junior High School and Middle School

Purposes, practices, and trends in administration of the middle level school. Current administrative principles and practices essential to effective organization and management. Emphasis is on leadership of the principal at the middle level school. **Semester Hours:** 3 to 3

EDUC 7630 - Doctoral Seminar: Junior and/or Senior High School Education

For advanced students. Problems, theories, and trends in secondary education. Includes field work and individual projects. **Semester Hours:** 3 to 3

EDUC 7700 - Doctoral Pro Seminar

This seminar integrates multiple doctoral labs, assists students to focus on dissertation topics, and facilitates inclusion of regional or national researches in students' PhD experiences. Prereq: Admission to the PhD program. **Semester Hours:** 1 to 1

EDUC 7800 - Doctoral Research Seminar: Education Administration, Curriculum-Supervision

This seminar focuses on doctoral research study in these areas of educational research. **Semester Hours:** 3 to 3

EDUC 7810 - Doctoral Seminar in School Law

An in-depth examination of the American legal process as it pertains to administration, planning, and delivery of educational programs. Involves self-selected research followed by individual or group presentations. **Semester Hours:** 3 to 3

EDUC 7820 - Doctoral Seminar in Curriculum

Advanced seminar relating to theory and practice in curriculum building. Includes both elementary and secondary levels. **Semester Hours:** 3 to 3

EDUC 7823 - Doctoral Seminar in Educational Supervision

Advanced exploration of current instructional supervision concepts with exercises linking theory with professionals to solve instructional problems. **Semester Hours:** 3 to 3

EDUC 7825 - Doctoral Seminar in Educational Leadership

Seminar dealing with processes and patterns of educational leadership in the schools. Various theories of leadership are considered in relation to students' leadership behaviors. May be taken more than one semester for credit with advisor's approval. **Semester Hours:** 3 to 3

EDUC 7840 - Independent Study: EDUC

Doctoral. **Semester Hours:** 1 to 4

EDUC 7911 - Practicum in Education Administration, Supervision and Curriculum

Semester Hours: 1 to 4

EDUC 7921 - Readings in Education Administration, Curriculum and Supervision

Semester Hours: 1 to 4

EDUC 7931 - Internship in Educational Administration and Supervision

Prereq: Permission of instructor. **Semester Hours:** 1 to 6

EDUC 7932 - Internship in Curriculum

Permission of instructor required. **Semester Hours:** 1 to 6

EDUC 8997 - Doctoral Dissertation Ed D

Semester Hours: 1 to 10

Electrical Engineering Courses (ELEC)

ELEC 1201 - Introduction to Electrical Engineering

Introduces the field of electrical engineering and the computer -- its primary tool. ELEC faculty members explain the various specialties within the field by demonstration. Word processors, spreadsheets, and engineering software are introduced. Note: This course is not available to students who have taken ELEC 2142. ENGR 1000 cannot be substituted for ELEC 1201. Prereq: High School Trigonometry. **Semester Hours:** 1 to 1

ELEC 1510 - Logic Design

The design of combinatorial and sequential switching circuits. Topics include Boolean algebra, Boolean function minimization technique, combinatorial circuit analysis and synthesis, synchronous sequential circuit analysis and synthesis, algorithmic state machine design, asynchronous sequential circuit analysis and synthesis. **Semester Hours:** 3 to 3

ELEC 1520 - Embedded Systems Engineering I

Programming concepts are introduced from a hardware design standpoint. Assembly language and the "C" language are used to interface and manipulate hardware. Microcontroller programming for electrical engineering applications is studied. Prereq: ELEC 1510. **Semester Hours:** 3 to 3

ELEC 2132 - Circuit Analysis I

Introduces circuit analysis: basic principles, operational amplifier circuits, first-order and second-order circuits, steady-state sinusoidal analysis with phasor mathematics. Prereq: MATH 2411 and PHYS 2311. Cross-listed with CSCI 2132. **Semester Hours:** 3 to 3

ELEC 2142 - Circuit Analysis II

Sequential course after ELEC 2132. Topics include: Solution of circuits using Laplace transforms, frequency domain analysis, additional steady-state solutions, Bode plots, active filters, pulses, impluses, and computer-aided analysis. Prereq: ELEC 213 **Semester Hours:** 3 to 3

ELEC 2520 - Embedded Systems Engineering 2

A second semester computer engineering course covering basic computer architecture including CPU's, memory, peripherals, and operating systems including development tools, Kernel selection, file systems, and storage device manipulation, boot loaders, USB, networking, device drivers, and real-time operating system usage. Prereq: ELEC 1520. **Semester Hours:** 3 to 3

ELEC 2531 - Logic Laboratory

Experiments in digital logic utilizing both computer simulation and actual analysis using integrated circuits. Initially, combinational logic circuits are studied, including circuits such as binary adders and multipliers, followed by sequential circuits, including counters. Meters and oscilloscopes are introduced. Use of computer-aided design tools facilitating design, simulation, and implementation of digital systems using field-programmable logic devices are an integral

part of the entire course. Prereq/Coreq: ELEC 1510. Cross-listed with CSCI 2531. **Semester Hours:** 1 to 1

ELEC 2552 - Sophomore Circuits Laboratory

Conduct experiments in circuit measurement using oscilloscopes, power supplies, and function generators. Verify basic circuitry, basic circuit theorems such as Ohm's Law, Kirchoff's Law, and Thevenin's theorem and Norton's theorem. Learn by experiments: impedance functions, transfer functions, resonance, Fourier series and analog filters. Prereq/coreq: ELEC 2142.

Semester Hours: 1 to 1

ELEC 3030 - Electric Circuits and Systems

This basic electrical engineering course is for non-majors (does not apply to BSEE degree). Students study circuit analysis, transformers, electric motors, and simple electronic circuits (diodes and transistors). Prereq: MATH 2421 and PHYS 2331. Cross-listed with MECH 3030.

Semester Hours: 3 to 3

ELEC 3133 - Electromagnetic Fields

Basic material is covered, including: vector analysis in generalized coordinates, Maxwell's equations postulated for free space and extended to material regions and boundary conditions, uniform plane waves for free space and for materials, and static and quasi-static electric and magnetic fields. Prereq: ELEC 2132, MATH 3195, 2421 and PHYS 2331. **Semester Hours:** 3 to 3

ELEC 3164 - Energy Conversion

Theory of transformers. Energy conversion concepts. Basic rotating energy converters, including direct current, synchronous and induction machines and applications. Prereq: ELEC 2142.

Semester Hours: 3 to 3

ELEC 3215 - Electronics I

The learning objective is fundamental semiconductor theory as applied to electronic circuits. Topics include: semiconductor theory, P-N junctions and diode applications, power supply design, transistor (BJT) theory and applications, low-frequency amplifiers, FET and MOSFET devices. Prereq: ELEC 2132, PHYS 2331 and CHEM 1130. **Semester Hours:** 3 to 3

ELEC 3225 - Electronics II

BJT and FET transistor models at high frequencies, multistage amplifiers, frequency response of amplifiers. Feedback, operational amplifiers, oscillators, power amplifiers, and introduction to power electronics. Prereq: ELEC 2142 and 3215. **Semester Hours:** 3 to 3

ELEC 3316 - Linear Systems Theory

Introduces the fundamentals of signals and systems analysis. Topics include: time domain analysis of continuous and discrete time systems, frequency domain (Laplace and z-transform) analysis, applications to filters and feedback systems, Fourier transform for both continuous and discrete time signals, sampling and signal reconstruction, applications to communication

systems and state space representation. Learning experience is enhanced by using MATLAB-based examples and experiments. Prereq: ELEC 2142. **Semester Hours:** 3 to 3

ELEC 3651 - Digital Hardware Design

The specification and design of large digital hardware systems. Applications include using a hardware description language and simple digital control circuits. Prereq: ELEC 2531 and ELEC 2520. **Semester Hours:** 3 to 3

ELEC 3715 - Electronics Laboratory

Design and experimental verification of the operation of filter circuits, power supply circuits, transistor amplifier circuits and FET circuits. Prereq: ELEC 2552. Prereq/Coreq: ELEC 3215 **Semester Hours:** 1 to 1

ELEC 3724 - Energy Conversion Laboratory

Basic electro-mechanical energy conversion concepts as applied to the synchronous machine, induction machine, and DC machine; the transformer; applications. Prereq: ELEC 2142. Prereq or Coreq: ELEC 3164. **Semester Hours:** 1 to 1

ELEC 3735 - Junior Laboratory

Design and measure: several nonlinear op-amp circuits, a multi-stage amplifier, and a complementary-symmetry output stage. Oral presentations on experiments to be given. Prereq: ELEC 3715. Prereq/Coreq: ELEC 3225. **Semester Hours:** 1 to 1

ELEC 3817 - Engineering Probability and Statistics

Topics include: definition of probability, conditional probability, independence, combined experiments and Bernoulli trials, random variables, joint distribution and density functions, correlations, sample mean and variance. Also, introduction to random processes, auto and cross correlation functions, spectral density of random signals, responses of a linear system to random inputs. Prereq: MATH 3195 and 2421. **Semester Hours:** 3 to 3

ELEC 3939 - Internship

Students gain engineering design experience involving application of specific technical concepts and skills in a supervised industrial environment. (Must have approval from ELEC faculty.) Prereq: ELEC 2142. **Semester Hours:** 1 to 3

ELEC 3999AE - ELEC Equivalent-Upper Div

Semester Hours: 1 to 5

ELEC 4005 - IC Design

Explores digital integrated circuit design including MOS processing steps, physical operation, building blocks of digital circuits, advanced nMOS, pMOS and CMOS circuit design, silicon VLSI technology and circuit and chip level. Spice and lay-out Editor are used. The physical relationship between circuit design and actual silicon layout and structure and technology are emphasized. Prereq: Graduate standing or permission of instructor. Prereq: ELEC 3225. Cross-listed with ELEC 5005. **Semester Hours:** 3 to 3

ELEC 4025 - Device Electronics

A course relating performance and limitations of solid state devices to their structures and technology. For both advanced circuit and device engineers. Semiconductor physics and technology, pn-junction and MOS devices used in modern integrated circuits. Prereq: ELEC 3225 and senior standing. Cross-listed with ELEC 5025. **Semester Hours:** 3 to 3

ELEC 4133 - Advanced Electromagnetic Fields

Topics include: Poynting's power theorem, reflection and transmission of uniform plane waves in layered media, two-conductor transmission lines, rectangular wave guides, Smith Chart elements of radiation and antenna theory. Prereq: ELEC 3133. Cross-listed with ELEC 5233. **Semester Hours:** 3 to 3

ELEC 4136 - Control Systems Analysis

Introduces students to the fundamentals of analysis and design of feedback systems. Topics include: mathematical models of linear continuous-time systems applied to modeling physical systems in the time and frequency domain, control system characteristics, Routh's stability and transient response analysis, Nyquist stability and polar plots, analysis and design of linear control systems by root locus and frequency response, methods, compensator implementation, finite-precision numerical effects, round-off errors, and computer-based design applications. Prereq: ELEC 3316; Prereq/Coreq: ELEC 3817. **Semester Hours:** 3 to 3

ELEC 4164 - Electric Drive Systems

Covers power electronics drives for rotating electric machinery. Topics include power electronics elements for drives, load characteristics, dynamic modeling of AC machines, fundamental control algorithms, simulation and practical commercial drives. Prereq: ELEC 3164. Cross-listed with ELEC 5164. **Semester Hours:** 3 to 3

ELEC 4170 - Electric Drive Systems Laboratory

Includes hands-on experience on rotating electric machine drives. Experiments include drives for induction, DC, and synchronous machines. Up-to-date industrial equipment and advanced computer controller will be utilized. Prerequisite or Co-requisite: ELEC 4164/5164 or equivalent. **Semester Hours:** 1 to 1

ELEC 4174 - Power Electronic Systems

Topics to be covered include: power electronics fundamentals and applications in power systems; uncontrolled, semi-controlled and fully controlled power semiconductors; converters design and control. Prereq: ELEC 3164. Cross-listed with ELEC 5174. **Semester Hours:** 3 to 3

ELEC 4184 - Power Systems Analysis

Topics to be covered include: complex power; per-unit quantities; modeling of generators, transformers and transmission lines; power flow problem; economic dispatch; faults and sequence networks; and an introduction to power system protection and dynamics. Prereq: ELEC 3164. Cross-listed with ELEC 5184. **Semester Hours:** 3 to 3

ELEC 4225 - Advanced Electronics

Switching state models of discrete components and integrated circuits, including logic gates, comparators, and operational amplifiers. Input, output, and transfer characteristics. Non-ideal properties. Analog-digital and digital-analog conversion. MOS-integrated circuits. Prereq: ELEC 3215, 3225, 3735. **Semester Hours:** 3 to 3

ELEC 4247 - Communication Theory

Introduces the principles of analog and digital communication systems. Series expansion and Fourier Series and transforms. The sampling theorem. Stochastic principles and noise. Linear systems and Fourier analysis. Design of transmitters and receivers: modulation and demodulation schemes. Some information theoretic concepts: source coding, channel coding, channel capacity and performance measures. Prereq: ELEC 3316 and 3817. **Semester Hours:** 3 to 3

ELEC 4248 - Digital Communication Systems

Introduces digital communication systems covering elements of information theory; mathematical representation of signals and systems; modulation and demodulation for the additive Gaussian noise channel; performance analysis of various transmission formats; synchronization; coded waveforms; decoding algorithms; and other related topics. Prereq: ELEC 3316, 3817; recommended ELEC 4247. Cross-listed with ELEC 5248. **Semester Hours:** 3 to 3

ELEC 4249 - Space Communications Systems

Presents the art of space communications system design around the framework of the link budget and the essential analysis tool of the radio system designer. The budget is examined from theoretical and practical viewpoints. Pointers and motivation for further study in each of the related engineering disciplines are provided. Topics to be examined include satellite orbits, propagation, antennas, noise, modulation, coding and hardware or software. Prereq: Permission of instructor. Cross-listed with ELEC 5249. **Semester Hours:** 3 to 3

ELEC 4276 - Digital Control Systems

Topics to be covered include: discrete-time systems and the z-transform, characteristics of open-loop and closed-loop discrete-time systems, time-response characteristics and stability analysis, design of digital and hybrid control systems using z-transform, root locus, frequency domain, and state variable compensation techniques, compensator on, implementation, and computer-based design applications. Prereq: ELEC 3316 and ELEC 3817. Cross-listed with ELEC 5276. **Semester Hours:** 3 to 3

ELEC 4309 - Senior Design Project I

Design methodology and tools, project planning and team building, ethics in engineering and research, career planning and portfolio building. Project designs are completed and presented to the class. Prereq: Students must complete their Senior/30 hour check prior to enrollment. Prereq/Coreq: All required ELEC 3000-level classes and labs. ELEC 4309 and ELEC 4319 must be completed in subsequent academic semesters. **Semester Hours:** 3 to 3

ELEC 4319 - Senior Design Project II

Project designs completed in ELEC 4309 are constructed and tested. Oral and written presentations of the completed project performance are required. Prereq: ELEC 4309. All required ELEC 3000-level classes and labs. Students must complete their Graduation Agreement prior to enrollment. ELEC 4309 and ELEC 4319 must be completed in subsequent academic semesters. **Semester Hours:** 3 to 3

ELEC 4373 - Optical Engineering

This course introduces some of the most important concepts in optical engineering and prepares students a solid foundation to apply them to applications in the industry and academic research. Prereq: ELEC 3133 Electromagnetic Fields. Cross-listed with ELEC 5373. **Semester Hours:** 3 to 3

ELEC 4406 - Control Systems Laboratory

This lab includes system identification, design of velocity control systems, design of PID controllers and control systems using state variable feedback. Prereq: ELEC 3225, ELEC 3316, and ELEC 3735. Prereq/Coreq: ELEC 3817. Cross-listed with ELEC 5276. **Semester Hours:** 1 to 1

ELEC 4423 - Radio Frequency Laboratory

Projects involve modern RF analyzers, wave-guide devices, time-domain techniques, characterization of filters/amplifiers, signal propagation and scattering, harmonic mixing, and radio frequency identification. Students will gain experience using MATLAB for data acquisition and processing. Cross-listed with ELEC 5423. **Semester Hours:** 1 to 1

ELEC 4435 - Advanced Electronics Laboratory

Projects related to digital logic, analog and digital switches, A/D and D/A converters, and design of signal filters. Prereq: ELEC 3225 and 3735; Prereq or Coreq: ELEC 4225. **Semester Hours:** 1 to 1

ELEC 4444 - Power Systems Laboratory

This lab introduces the student to modern computational tools used in power system analysis. Algorithms to solve the "power flow problem," the "economic dispatch problem," and the "optimal power flow problem" are discussed and implemented in the Matlab-Simulink mathematical analysis software package. Prereq: ELEC 4184. **Semester Hours:** 1 to 1

ELEC 4466 - Adaptive Control System Design

Basic concepts in adaptive feedback control. Overview of application areas. Stability of non-linear systems and hyperstability approach to the design of adaptive controllers. Passivity concept and Liapunov stability. Design of model reference adaptive systems, self-tuning regulators, stochastic adaptive, and dual control systems. Computer-based design applications. Emphasis is placed on design projects. Prereq: ELEC 4136 or 4276. Cross-listed with ELEC 5466. **Semester Hours:** 3 to 3

ELEC 4467 - Communications Laboratory

Analysis and design in three main areas: traditional analog communications at low and medium frequencies, digital communications, and microwave communications systems. Extensive use of spectrum analysis from low frequencies up to microwave range. Projects include noise, AM, FM, PM, PLL, sampling, quantizing, encoding, TDM, FSK, QPSK, 16QAM, receivers, and satellite communications systems. Prereq: ELEC 3735; Prereq or Coreq: ELEC 4247 or ELEC 4248.

Semester Hours: 1 to 1

ELEC 4474 - Power Electronics Laboratory

The power electronics laboratory introduces students to seven fundamental switchmode power conversion topologies, along with voltage and current feedback control, assembled on a reconfigurable power pole circuit board with external power supplies and laboratory. Coreq: ELEC 4174. Cross-listed with ELEC 5474. **Semester Hours:** 1 to 1

ELEC 4501 - Microprocessor Based Design

Covers advanced treatment of embedded system design using microprocessors. Analog input circuitry is interfaced to a microprocessor, and a PC board layout is created to develop a complete system design. Software/Operating System is implemented for realtime I/O. Prereq/Coreq: ELEC 3225, ELEC 3651, and ELEC 3735. Cross-listed with ELEC 5501.

Semester Hours: 3 to 3

ELEC 4511 - Hardware-Software Interface

Computer engineering methods in hardware and software design applied to problems drawn from the mini- and micro-computer systems field. Hardware and software techniques for the design of combined hardware or software are developed. Interface and real-time **Semester Hours:** 3 to 3

ELEC 4521 - Microprocessor Laboratory

Provides support for the projects assigned in ELEC 4501 - a complete embedded system is designed, built and tested. Coreq: ELEC 4501. **Semester Hours:** 1 to 1

ELEC 4555 - VLSI Circuit Simulation

Computer methods for large integrated circuits. Theory and practice of VLSI circuit simulation. Nodal formulations of networks. Computer generation of sensitivities. Modeling active devices. DC solution of nonlinear networks. Prereq: ELEC 3225. Cross-listed with ELEC 5555.

Semester Hours: 3 to 3

ELEC 4561 - Hardware-Software Lab

Projects related to the software interface of a processor to external devices. Topics include A/D converters, serial and parallel interfaces. Coreq: ELEC 4511. **Semester Hours:** 1 to 1

ELEC 4637 - Digital Signal Processing

Discrete-time signals and systems in the time and frequency domain. Digital filter structures, design of FIR filters by windowing, optimum approximations of FIR filters. Design of digital IIR filters from continuous time domain. Computer-aided design of digital filters. The discrete

Fourier transform and DSP algorithm implementation. Analysis of finite word length effects. Application of digital signal processing. Prereq: ELEC 3316 and 3817. Cross-listed with ELEC 5637. **Semester Hours:** 3 to 3

ELEC 4644 - Introduction to Biomedical Imaging

An important component of the recent expansion in biomedical engineering is the area of biomedical imaging. This ELEC 4644/5644 course is an introduction to biomedical imaging systems, not only covering the fundamentals of imaging physics but also the applications of four primary biomedical imaging modalities: X-Ray Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Nuclear Medicine (i.e. PET, SPECT), and Ultrasound Imaging. Prereq: ELEC 3316 and ELEC 4637. Cross-listed with ELEC 5644. **Semester Hours:** 3 to 3

ELEC 4678 - Quantum Electronics

The course teaches students to understand the basic concepts of quantum mechanics and to learn the mathematical tools needed and to be familiar with some of the technical knowledge that applies quantum mechanics to various advanced problems in engineering. Prereq: PHYS 2331 and MATH 3195. Cross-listed with ELEC 5678. **Semester Hours:** 3 to 3

ELEC 4688 - Introduction to Nondestructive Testing

A basic, broad understanding of the principles of nondestructive testing and evaluation is provided. The main objective of this course is to attract students to NDT fields and eventually help address the increasing needs of NDT engineers and technicians. Interaction and collaboration with local NDT industries will also be emphasized. As an introductory course, a broad interdisciplinary knowledge of NDT will be covered in the following sub-areas: Visual, Penetrant, Magnetic Particle, Eddy Current, Microwave, Ultrasonic, and Radiography. Prereq: ELEC 1201 and ELEC 3316. Cross-listed with ELEC 5688. **Semester Hours:** 3 to 3

ELEC 4723 - High Performance Computer Architecture

High Performance Computer Architecture covers the design of advanced computing systems. In particular, the course includes the design of modern microprocessors, characteristics of the memory hierarchy, and issues involved in multithreading and multicore architectures. Prereq: ELEC 3651 Digital Hardware Design. Cross-listed with ELEC 5723. **Semester Hours:** 3 to 3

ELEC 4727 - Computer Vision & Image Processing Acceleration

Real-time constraints on computer-vision and image processing applications have motivated numerous explorations of multicore architectures to provide more efficiency through hardware parallelism and acceleration. This course undertakes the study of image processing and computer vision algorithms in the context of parallel hardware. Cross-listed with ELEC 5727. **Semester Hours:** 3 to 3

ELEC 4755 - Renewable Energy Systems

This course considers electrical generation using renewable energy sources of a variety of types. While examining many developing technologies, it concentrates on the design and application of photovoltaic and wind electrical generation. It examines current methods of classification of wind and solar sites, and discussed aspects which must be considered when choosing sites for

wind or solar installations. It examines photovoltaic and thermal solar technologies, inverter technologies, and their integration into the power grid. Also considered are micro-hydro and fuel cell technologies. Renewable system economics and legislative effects are also discussed. Cross-listed with ELEC 5755. **Semester Hours:** 3 to 3

ELEC 4800 - Special Topics

Semester Hours: 1 to 3

ELEC 4840 - Independent Study: ELEC

An opportunity for independent creative work. Prereq: Permission of instructor. **Semester Hours:** 1 to 3

ELEC 5005 - IC Design

Explores digital integrated circuit design including MOS processing steps, physical operation, building blocks of digital circuits, advanced nMOS, pMOS and CMOS circuit design, silicon VLSI technology and circuit and chip level. Spice and lay-out Editor are used. The physical relationship between circuit design and actual silicon layout and structure and technology are emphasized. Prereq: Graduate standing or permission of instructor. Cross-listed with ELEC 4005. **Semester Hours:** 3 to 3

ELEC 5025 - Device Electronics

A course relating performance and limitations of solid state devices to their structures and technology. For both advanced circuit and device engineers. Semiconductor physics and technology, pn-junction and MOS devices used in modern integrated circuits. Prereq: ELEC 3225 and senior standing. Cross-listed with ELEC 4025. **Semester Hours:** 3 to 3

ELEC 5033 - Advanced Electromagnetic Fields

Topics include: Poynting's power theorem, reflection and transmission of uniform plane waves in layered media, two-conductor transmission lines, rectangular wave guides, Smith Chart elements of radiation and s antenna theory. Prereq: ELEC 3133. Cross-listed with ELEC 4133. **Semester Hours:** 3 to 3

ELEC 5133 - Electromagnetic Radiation and Antenna

Solution of inhomogeneous wave equation. Radiation fields of elementary dipole, linear wire antenna, uniform and non-uniform linear arrays. Array synthesis. Farzone field patterns, directivity and beamwidth. Diffraction fields of aperture sources, horn antenna, conic surface reflector sources, lens antenna. Ray tracing methods. Transient-receive link. Selected Topics. Prereq: ELEC 4133, graduate standing and permission of instructor. **Semester Hours:** 3 to 3

ELEC 5164 - Electric Drive Systems

Covers power electronics drives for rotating electric machinery. Topics include power electronics elements for drives, load characteristics, dynamic modeling of AC machines, fundamental control algorithms, simulation and practical commercial drives. Prereq: ELEC 3164. Cross-listed with ELEC 4164. **Semester Hours:** 3 to 3

ELEC 5170 - Advanced Electric Drive Systems

Covers advanced theory and implementation techniques for rotating electric machinery drives. Topics include field oriented control theory, detailed dynamic modeling of induction machine/drive system, advanced control algorithms and controller design. Prereq: ELEC 4164, 5164 or equivalent. **Semester Hours:** 3 to 3

ELEC 5174 - Power Electronic Systems

Topics to be covered include: power electronics fundamentals and applications in power systems; uncontrolled, semi-controlled and fully controlled power semiconductors; converters design and control. Prereq: ELEC 3164 and graduate standing or permission of instructor. Cross-listed with ELEC 4174. **Semester Hours:** 3 to 3

ELEC 5184 - Power Systems Analysis

Topics to be covered include: complex power; per-unit quantities; modeling of generators, transformers and transmission lines; power flow problem; economic dispatch; faults and sequence networks; and an introduction to power system protection and dynamics. Prereq: ELEC 3164 and graduate standing or permission of instructor. Cross-listed with ELEC 4184. **Semester Hours:** 3 to 3

ELEC 5194 - Power Systems Operation and Control

This course introduces the student to various operational strategies the power industry uses today to operate the power system. Topics to be covered include: economic dispatch, unit commitment, optimal power flow (linear and nonlinear), transmission congestion, control areas, state estimation, and an introduction to power markets. Prereq: ELEC 4184 or ELEC 5184 or permission of instructor. **Semester Hours:** 3 to 3

ELEC 5210 - Optimization Methods in Engineering

Unconstrained optimization, gradient methods, conjugate direction methods, data fitting and function estimation. Applications in control, system identification and radar systems. Optimization over a convex set, LMS algorithms in adaptive systems, convergence properties. Nonlinear programming, Lagrange multipliers, projection algorithms, games and minimax theorem, application to H infinity control, communication and signal processing. Prereq: MATH 3191 and 3200/3195. **Semester Hours:** 3 to 3

ELEC 5220 - Methods of Engineering Analysis

Real sequences and infinite series, convergence of the parameter estimates in self-tuning control. Uniform convergence and application to adaptive FIR filters. Improper integrals, application in filtering, prediction and communication. Analytic functions, Hardy spaces, maximum modulus theorem. Argument principle and Nyquist stability criteria. Calculus of residues, LQG problem. Conformal mappings, Nevelinna-Pick problem. Prereq: MATH 3191 and 3200/3195, graduate standing. **Semester Hours:** 3 to 3

ELEC 5230 - Advanced Linear Systems

Mathematical description of both continuous and discrete-time systems; vector, normed and inner-product spaces; state-space, impulse response and transfer function descriptions; state-

transition response matrices; eigenvalues and eigenfunctions; controllability; canonical form; state feedback; observers; realization theory. Prereq: MATH 3191, MATH 3200/3195 and permission of instructor. **Semester Hours:** 3 to 3

ELEC 5248 - Digital Communication Systems

Introduces digital communication systems covering elements of information theory; mathematical representation of signals and systems; modulation and demodulation for the additive Gaussian noise channel; Performance analysis of various transmission formats; synchronization; coded waveforms; decoding algorithms; and other related topics. Prereq: ELEC 3316, 3817; recommended ELEC 4247. Cross-listed with ELEC 4248. **Semester Hours:** 3 to 3

ELEC 5249 - Space Communications Systems

Presents the art of space communications system design around the framework of the link budget and the essential analysis tool of the radio system designer. The budget is examined from theoretical and practical viewpoints. Pointers and motivation for further study in each of the related engineering disciplines are provided. Topics to be examined include satellite orbits, propagation, antennas, noise, modulation, coding and hardware or software. Prereq: Permission of instructor and graduate standing. Cross-listed with ELEC 4249. **Semester Hours:** 3 to 3

ELEC 5250 - Information Theory

Introduces information theory and its application in computer science, communication theory, coding and applied mathematics. Entropy, mutual information, data compression and storage, channel capacity, rate distortion, hypothesis testing. Error detecting and correcting codes, block codes and sequential codes. Prereq: ELEC 3817 or CSCI 4535 or MATH 3800. Cross-listed with CSCI 5217. **Semester Hours:** 3 to 3

ELEC 5252 - Computer Communication Networks

Comprehensive study of issues arising in modern computer-communication networks, both wire-line and wireless, carrying traffics with heterogeneous characteristics. A conceptual and analytical approach to the design of network protocols in harmony with the appropriate modeling of the traffic and network environments. Issues covered include routing, transmission, performance monitoring, as well as and network management in ATM multi-media networks. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

ELEC 5276 - Digital Control Systems

Analysis and design of discrete-time systems, as occurs when a digital computer is used to control physical systems. Topics include difference equations, Z-transform, sampled-data system modeling, sampling, discrete equivalents, stability, and discrete control design by root locus, direct design, frequency-response, and state space. Prereq: ELEC 3316, ELEC 3817, and graduate standing. Cross-listed with ELEC 4276. **Semester Hours:** 3 to 3

ELEC 5294 - Advanced Power Electronic Systems

Topics to be covered include: three-phase diode/thyristor bridge rectifiers; three-phase voltage source converters; matrix converters; FACTS devices; Custom Power devices; converter's design, control and modulation strategies. Prereq: ELEC 4174 or ELEC 5174. **Semester Hours:** 3 to 3

ELEC 5373 - Optical Engineering

This course introduces some of the most important concepts in optical engineering and prepares students a solid foundation to apply them to applications in the industry and academic research. Prereq: ELEC 3133 Electromagnetic Fields. Cross-listed with ELEC 4373. **Semester Hours:** 3 to 3

ELEC 5423 - Radio Frequency Laboratory

Projects involve modern RF analyzers, waveguide devices, time-domain techniques, characterization of devices, signal propagation and scattering, harmonic mixing, and radio frequency identification. Students will gain experience using MATLAB for data acquisition and processing. Graduate students will explore projects in greater detail. Cross-listed with ELEC 4423. **Semester Hours:** 1 to 1 **When Offered:** FALL SPR

ELEC 5433 - Fundamentals and Applications of Plasmas

This course provides an introduction to plasmas, also known as the fourth state of matter, in nature and industry. Topics covered include single particle motions, plasma kinetic and fluid theory, cold and warm plasma models and interaction of electromagnetic waves with plasmas. Applications ranging from space sciences to medicine are explored. Prereq ELEC 3133 for undergraduate students or permission of the instructor. No prerequisite for CEAS graduate students. **Semester Hours:** 3 to 3 **When Offered:** FALL SPR

ELEC 5436 - Nonlinear Control Systems I

Analysis and synthesis of nonlinear feedback control systems. Linearization's and stability in the small, equivalent linearization and the describing function. The dual input describing function. Stability in the large and the second method of Lyapunov. Stability of time-varying systems. Popov's method and extensions. Prereq: ELEC 4136 or 4276. **Semester Hours:** 3 to 3

ELEC 5444 - Power System Laboratory

This lab introduces the student to modern computational tools used in power system analysis. Algorithms to solve the "power flow problem", the "economic dispatch problem", and the "optimal power flow problem" are discussed and implemented in the Matlab-Simulink mathematical analysis software package. Prereq: ELEC 4184 & 5184. **Semester Hours:** 1 to 1

ELEC 5446 - Introduction to Modern Control Theory

State space representation of dynamic systems. Canonical forms. Frequency domain analysis. Controllability and observability. Design by statespace methods: pole-placement, linear observers, separation principle, robustness. Linear, quadratic optimum control. Prereq: ELEC 4136 or 4276. **Semester Hours:** 3 to 3

ELEC 5455 - Computer Methods for Device Electronics

Numerical analysis of PN junctions, Bipolar transistors, GAAS MESFETS, and MOSFETS. Numerical solution of discrete-form equations. Finite-difference method for semiconductor devices. Two-dimensional models: DC, transient, and small signal numerical analysis. Co-req: ELEC 4025/5025. **Semester Hours:** 3 to 3

ELEC 5456 - Sampled Data and Digital Control Systems

Elements of sampling theory. Overview of design approaches via transform methods. Analysis and design in state space. Optimal control systems. Emphasis is placed on computer-aided design projects. Prereq: ELEC 4276. **Semester Hours:** 3 to 3

ELEC 5466 - Adaptive Control System Design

Basic concepts in adaptive feedback control. Overview of application areas. Stability of non-linear systems and hyperstability approach to the design of adaptive controllers. Passivity concept and Liapunov stability. Design of model reference adaptive systems, self-tuning regulators, stochastic adaptive, and dual control systems. Computer-based design applications. Emphasis is placed on design projects. Prereq: ELEC 4136 or 4276. Cross-listed with ELEC 4466. **Semester Hours:** 3 to 3

ELEC 5474 - Power Electronics Laboratory

The power electronics laboratory introduces students to seven fundamental switchmode power conversion topologies, along with voltage and current feedback control, assembled on a reconfigurable power pole circuit board with external power supplies and laboratory. Cross-listed with ELEC 4474. **Semester Hours:** 1 to 1

ELEC 5476 - Optimal Control Systems

Liapunov stability and quadratic optimal control problems. The minimum principle and the Pontryagin maximum principle. Variational calculus and Hamilton-Jacoby-Bellman equation. The separation principle of LQG control. Combined optimal state estimation and control. Differential and difference Riccati equations. Tracking and disturbance rejection. Computer-aided design applications. Prereq: ELEC 4136 or 4276. **Semester Hours:** 3 to 3

ELEC 5486 - Modeling and System Identification

Linear time-invariant and time-varying models. Nonlinear state space models. Non-parametric methods. Parameter estimation methods. Convergence and consistency. Computational methods in estimation. Recursive estimation methods. Experiment design and choice of identification criterion. Model structure selection and model validation. Prereq: ELEC 3817 or MATH 3800, and ELEC 4136 or 4276. **Semester Hours:** 3 to 3

ELEC 5496 - Robust Control

Background mathematics: function spaces and operators, and factorization theory. Stability theory: stability and stabilizability parameterization, closed-loop transfer matrices. Model-Matching Theory: solution existence, SISO Design, the Nehari problem. Performance bounds. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

ELEC 5501 - Microprocessor-Based Design

Covers advanced treatment of embedded system design using microprocessors. Analog input circuitry is interfaced to a microprocessor, and a PC board layout is created to develop a complete system design. Software/Operating System is implemented for realtime I/O. Prereq: Graduate standing or permission of instructor. Cross-listed with ELEC 4501. **Semester Hours:** 3 to 3

ELEC 5511 - Hardware-Software Interface

Computer engineering methods in hardware and software design applied to problems drawn from the mini- and micro-computer systems field. Hardware and software techniques for the design of combined hardware or software are developed. Interface and real-time programming techniques are considered. Graduate level requires additional projects and homework. Prereq: Graduate standing or permission of instructor. Cross-listed with ELEC 4511. **Semester Hours:** 3 to 3

ELEC 5521 - Design and Test of Digital Systems

Application of hardware description languages to the design, synthesis, analysis, and testing of digital and computer systems; modeling and simulation constructs; modern hardware description languages, including VHDL, logic and behavioral synthesis; rapid-prototyping; FPGA and standard-cell ASIC design; design for testability; and electronic design automation. Prereq: ELEC 3651 or graduate standing. **Semester Hours:** 3 to 3

ELEC 5522 - VLSI Systems

Examines the design of very large-scale integrated (VLSI) systems from the logic to physical levels, including MOS transistor design, CMOS fabrication and design rules, device and wafer processing, inverter and complex gate design, mask level layout, VLSI system components and architectures, algorithms for VLSI computer-aided design, and testability. Prereq: ELEC 3215 and 3651 or graduate standing. **Semester Hours:** 3 to 3

ELEC 5551 - Pattern Recognition

Pattern recognition techniques from image processing and artificial intelligence are explored. Topics include neural networks, morphological processing, wavelets, fractals, and basic image understanding. Prereq: ELEC 3316 and 3651. **Semester Hours:** 3 to 3

ELEC 5555 - VLSI Circuit Simulation

Computer methods for large integrated circuits. Theory and practice of VLSI circuit simulation. Nodal formulations of networks. Computer generation of sensitivities. Modeling active devices. DC solution of nonlinear networks. Prereq: Graduate standing or permission of instructor. Cross-listed with ELEC 4555. **Semester Hours:** 3 to 3

ELEC 5617 - Random Processes for Engineers

Probability, sequences of random variables, specification of stochastic processes, stationarity, correlation functions and spectral densities, linear mean-square estimation, central limit theorems, law of large numbers, non-stationary random processes, stochastic differential equations and Karhunen-Loeve expansion, Kalman filtering. Prereq: ELEC 3316 and ELEC 3817 and permission of instructor. **Semester Hours:** 3 to 3

ELEC 5627 - Stochastic Point Processes

Presents modeling physical phenomena characterized by highly localized events distributed randomly in a continuum. Applications include optical communications, queuing theory, decision theory, nuclear medicine and electron microscopy. Topics include Poisson counting

processes and its generalizations; stochastic differential equations used in filtering; martingales and Brownian motion. Prereq: ELEC 3817 or ELEC 5617. **Semester Hours:** 3 to 3

ELEC 5637 - Digital Signal Processing

Discrete-time signals and systems in the time and frequency domain. Digital filter structures, design of FIR filters by windowing, optimum approximations of FIR filters. Design of digital IIR filters from continuous time domain. Computer-aided design of digital filters. The discrete Fourier transform and DSP algorithm implementation. Analysis of finite word length effects. Application of digital signal processing. Prereq: ELEC 3316 and 3817. Cross-listed with ELEC 4637. **Semester Hours:** 3 to 3

ELEC 5638 - Digital Image Processing

Basics of two-dimensional (2-D) systems theory, including 2-D Fourier transform, Z-transform, and difference equations. Design of 2-D filters for image processing applications. Image transforms, including the 2-D FFT, cosine, Hadamard and KL. Image enhancement and restoration techniques. Method of image coding and compression. Prereq: ELEC 5637.

Semester Hours: 3 to 3

ELEC 5644 - Introduction to Biomedical Imaging

An important component of the recent expansion in biomedical engineering is the area of biomedical imaging. This ELEC 4644/5644 course is an introduction to biomedical imaging systems, not only covering the fundamentals of imaging physics but also the applications of four primary biomedical imaging modalities: X-Ray Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Nuclear Medicine (i.e. PET, SPECT), and Ultrasound Imaging. Prereq: Graduate standing, or permission of instructor. Cross-listed with ELEC 4644.

Semester Hours: 3 to 3

ELEC 5647 - Adaptive Signal Processing

Optimal filtering and identification of signal processing models. Martingales and analysis of recursive estimation algorithms. LMS and RLS adaptive filters. Stability, convergence and robustness of adaptive algorithms. Adaptive noise cancellation, time delay estimation and blind equalization. Adaptive differential pulse code modulation, adaptive prediction, adaptive Kalman Filters. Applications and implementation of adaptive algorithms. Prereq: ELEC 5637.

Semester Hours: 3 to 3

ELEC 5648 - Blind Signal Processing

Introduction to gradient optimization methods. Introduction to adaptive filtering. Principal component analysis and whitening. Robust and adaptive PCA. Blind SOS parameter estimation and deconvolution. Fundamentals of independent component analysis. Blind equalization of SIMO and MIMO systems. ICA by maximization of nongaussianity. ICA by MLE and minimization of mutual information. Applications and practical considerations. **Semester**

Hours: 3 to 3

ELEC 5657 - Detection and Estimation Theory

Introduces detection and extraction methods used in signal processing, including decision theory; detection of known and random signals; optimum receiver design; estimation theory; Wiener filtering; Kalman-Bucy filtering; and applications to communication systems. Prereq: ELEC 5617. **Semester Hours:** 3 to 3

ELEC 5667 - Wavelet Theory and Applications

Topics include: fundamentals of signal decomposition; theory of filter banks; multi-resolution analysis and fast wavelet transforms; applications image and video image and video compression; and denoising and feature detection. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

ELEC 5678 - Quantum Electronics

The course teaches students to understand the basic concepts of quantum mechanics and to learn the mathematical tools needed and to be familiar with some of the technical knowledge that applies quantum mechanics to various advanced problems in engineering. Prereq: PHYS 2331 and MATH 3195. Cross-listed with ELEC 4678. **Semester Hours:** 3 to 3

ELEC 5687 - Optical Communication Systems

System aspects of optical communication system design. Basic principles of sources, channels, detectors, counting statistics, amplifiers, and coding with regard to the performance limitations they place on the communication system. Prereq: ELEC 4247. **Semester Hours:** 3 to 3

ELEC 5688 - Introduction to Nondestructive Testing

A basic, broad understanding of the principles of nondestructive testing and evaluation is provided. The main objective of this course is to attract students to NDT fields and eventually help address the increasing needs of NDT engineers and technicians. Interaction and collaboration with local NDT industries will also be emphasized. As an introductory course, a broad interdisciplinary knowledge of NDT will be covered in the following sub-areas: Visual, Penetrant, Magnetic Particle, Eddy Current, Microwave, Ultrasonic, and Radiography. Prereq: Graduate standing, or permission of instructor. Cross-listed with ELEC 4688. **Semester Hours:** 3 to 3

ELEC 5697 - Optical and Spatial Information Processing

Processing of two- and three-dimensional spatial information. The scalar diffraction theory necessary to describe the information-bearing wave-front. Wave-front recording, modulations, and reconstruction. Holography, Fourier transform properties of lenses, two-dimensional convolution and correlation, pattern recognition, and optical information processing. Prereq: ELEC 3316. **Semester Hours:** 3 to 3

ELEC 5710 - Advanced Electric Drive Systems

Covers advanced theory and implementation techniques for rotating electric machinery drives. Topics include field oriented control theory, detailed dynamic modeling of induction machine/drive system, advanced control algorithms and controller design. Prereq: ELEC 4164/5164 or equivalent. **Semester Hours:** 3 to 3

ELEC 5714 - Energy Systems Analysis

Transmission line constants, including details of GMD methods, skin effect. Analysis of balanced and unbalanced line using distributed parameters, energy flow from circle diagram approach, traveling-wave phenomena, corona, power cables and fundamentals of DC transmission. Prereq: ELEC 4184. **Semester Hours:** 3 to 3

ELEC 5720 - Practical Electric Drive Systems

Covers practical control theory and implementation techniques for electric machine drives for rotating electric machinery using high-performance hardware and software. Topics include machine theory review, power converter, control theory, controller design and actual implementation of an induction machine drive using up-to-date microcontroller hardware and software. Prereq: ELEC 2520, ELEC 4164/5164 or equivalent. **Semester Hours:** 3 to 3

ELEC 5723 - High Performance Computer Architecture

High Performance Computer Architecture covers the design of advanced computing systems. In particular, the course includes the design of modern microprocessors, characteristics of the memory hierarchy, and issues involved in multithreading and multicore architectures. Prereq: ELEC 3651 Digital Hardware Design. Cross-listed with ELEC 4723. **Semester Hours:** 3 to 3

ELEC 5725 - Advanced Electric Machinery

Covers theoretical principles and techniques of electric machine analysis focusing on rotating machinery. Topics include various machine definitions, properties and analysis, software tools, and examples. Prereq: ELEC 3164 or equivalent. **Semester Hours:** 3 to 3

ELEC 5727 - Computer Vision & Image Processing Acceleration

Real-time constraints on computer-vision and image processing applications have motivated numerous explorations of multicore architectures to provide more efficiency through hardware parallelism and acceleration. This course undertakes the study of image processing and computer vision algorithms in the context of parallel hardware. Cross-listed with ELEC 4727. **Semester Hours:** 3 to 3

ELEC 5755 - Renewable Energy Systems

This course considers electrical generation using renewable energy sources of a variety of types. While examining many developing technologies, it concentrates on the design and application of photovoltaic and wind electrical generation. It examines current methods of classification of wind and solar sites, and discussed aspects which must be considered when choosing sites for wind or solar installations. It examines photovoltaic and thermal solar technologies, inverter technologies, and their integration into the power grid. Also considered are micro-hydro and fuel cell technologies. Renewable system economics and legislative effects are also discussed. Cross-listed with ELEC 4755. **Semester Hours:** 3 to 3

ELEC 5764 - Power Distribution Systems

Use of per-unit methods to find transient voltage behavior of industrial power systems resulting from motor starting, spotwelders and similar stimuli. System and device responses due to series

and shunt capacitors and problems of subharmonics and over-excitation on induction motors. Design of power distribution systems. Prereq: ELEC 4184. **Semester Hours:** 3 to 3

ELEC 5774 - Power Systems Dynamics and Protection

Topics to be covered include: power system dynamic fundamentals, various stability problems, such as angle, frequency and voltage stability; protection of power systems apparatus and protective relays coordination. Prereq: ELEC 4184/5184 or graduate standing. **Semester Hours:** 3 to 3

ELEC 5800 - Special Topics

Intermediate courses of variable title and variable credit, usually offered once by guest lecturers. See current departmental notices for details. **Semester Hours:** 1 to 3

ELEC 5840 - Independent Study: ELEC

Offers the opportunity for independent, creative work. Prereq: Permission of instructor. **Semester Hours:** 1 to 6

ELEC 5980 - Statistical Quality Control

Introduces statistical methods of quality control. Statistical process control, process capability, statistical design of experiments and total quality management. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

ELEC 6800 - Special Topics

Semester Hours: 1 to 3

ELEC 6950 - Master's Thesis

Semester Hours: 1 to 8

ELEC 6960 - Master's Report

Semester Hours: 1 to 8

ELEC 7800 - Special Topics

Courses of variable title and variable credit, usually offered once by guest lecturers. See current departmental notices for details. **Semester Hours:** 1 to 3

ELEC 7801 - Special Topics

Semester Hours: 1 to 3

ELEC 7802 - Special Topics

Semester Hours: 1 to 3

ELEC 7803 - Special Topics

Semester Hours: 1 to 3

ELEC 7804 - Special Topics

Semester Hours: 1 to 3

ELEC 7805 - Special Topics

Semester Hours: 1 to 3

ELEC 7806 - Special Topics

Semester Hours: 1 to 3

ELEC 7807 - Special Topics

Semester Hours: 1 to 3

ELEC 7808 - Special Topics

Semester Hours: 1 to 3

ELEC 7809 - Special Topics

Semester Hours: 1 to 3

ELEC 7840 - Independent Study: ELEC

Offers the opportunity for independent, creative work. Prereq: Permission of instructor.

Semester Hours: 1 to 6

ELEC 8990 - Doctoral Dissertation

Semester Hours: 1 to 10

Elementary Education Courses (ELED)

ELED 4800 - Curriculum Workshop

Semester Hours: 1 to 4

ELED 5060 - Improvement of Instruction

Designed to assist the educator in the systematic improvement of instruction. Emphasis is on the emergent knowledge related to successful classroom practices, techniques of assessment, analysis, and action related to the improvement of professional skills **Semester Hours:** 3 to 3

ELED 5140 - Elementary Curriculum: Integrating Language Arts with Literature

Integrating the language arts (reading, writing, listening, speaking) with children's literature. Selection of materials and development and presentation of ways to use children's literature in teaching the language arts. Required for post-baccalaureate p **Semester Hours:** 3 to 3

ELED 5150 - Elementary Curriculum: Teaching Mathematics, Science and Social Studies

Emphasis is on the role of the classroom teacher in development, implementation, and evaluation of contemporary interdisciplinary curricula. The course demonstrates the relationship between educational theory and classroom pedagogy, and is required for th **Semester Hours:** 6 to 6

ELED 5160 - Expressive Arts

Familiarizes participants with drama, music, dance, movement, (P E, dance and health) and visual arts. Provides a rationale for the arts in the elementary curriculum and ways in which arts can be integrated into classroom activities. **Semester Hours:** 3 to 3

ELED 5170 - Community and Interpersonal Relations

Provides an opportunity for students to develop communication and interpersonal skills that enable them to facilitate positive student self-concept and interaction among professional educators, the community, and social groups. Exposes the student to the **Semester Hours:** 3 to 3

ELED 5200 - Classroom Management

Instructional management, physical management, and behavior management are studied as interactive components in the establishment and maintenance of an effective learning environment. Cross-listed with SECE 5200. **Semester Hours:** 3 to 3

ELED 5320 - Advanced Language Arts in Elementary School

Current thought, as determined by research and practice in the various areas of the language arts; listening, speaking, reading and writing. Issues, trends, and innovative practices for the practicing teacher. **Semester Hours:** 3 to 3

ELED 5340 - Multicultural Science Education

This course examines literature in science education related to multicultural issues, topics will be framed by an understanding of equity in diverse, urban classrooms and how it informs curriculum and instruction. Cross-listed with ENVS 5340. **Semester Hours:** 3 to 3

ELED 5350 - Issues And Problems In Science Education

Emphasis on experimental programs and implementation of the newer programs. Supervision and curriculum development considered. **Semester Hours:** 3 to 3

ELED 5400 - Contemporary Mathematics for Elementary Schools

Surveys contemporary content and methodology with emphasis on interrelations among topics and techniques for providing learning for conceptual understanding through active problem solving. Cross-listed with MATH 3040. **Semester Hours:** 3 to 3

ELED 5401 - Assessment in Mathematics Education

Curriculum-based assessment focusing on the nature of assessment and its relation to evaluation and grading; teacher-made assessments; valid and authentic assessment; methods for assessing conceptual learning of mathematics, procedures, and problem solving. **Semester Hours:** 3 to 3

ELED 5410 - Teaching Numbers and Arithmetic

Teaching methodologies related to arithmetic and its applications. Covers mathematical attitudes, problem solving, math manipulatives, numeration, number concepts, number theory, algorithms, fractions, decimals, calculators and integration of arithmetic with **Semester Hours:** 3 to 3

ELED 5411 - Mathematics Education and Gender

Investigates gender-inclusive curriculum and teaching methods, equity and assessment, mathematical life histories, women in mathematics history, women's individual development and voice, single-sex programs and gender differences. **Semester Hours:** 3 to 3

ELED 5415 - Math Science Connections: Indoors

(Primarily for pre-secondary teachers.) Explores science concepts through activities appropriate for middle-grade students. Topics include how the nature of science and mathematics informs pedagogy, national and state standards, gravity, density, electric **Semester Hours:** 3 to 3

ELED 5416 - Math-Science Connections: Outdoor

(Primarily for pre-secondary teachers.) Explores science concepts through outdoor activities appropriate for middle-grade students. Topics include how the nature of science and mathematics informs pedagogy, national and state standards, earth science and **Semester Hours:** 3 to 3

ELED 5417 - Structure of Rational Numbers

Focuses on pedagogical practices that use multiple solution strategies to examine the structure of rational numbers. The assigned problems engage elementary and secondary teachers in

investigation of mathematical equivalence, properties, unitization, par **Semester Hours:** 3 to 3

ELED 5418 - Mathematical Modeling

Elementary and secondary teachers explore settings where mathematics is utilized in everyday activities. Teachers create mathematical models to describe events or situations in the world and use a variety of modeling strategies to solve problems. Prereq: **Semester Hours:** 3 to 3

ELED 5419 - Exploring the Structure of Geometry Using Technology

Develops elementary and secondary teachers' conceptual understanding of geometric properties, theorems and axiomatic systems through dynamic computer software investigations. Using the software enhances and extends teachers' ability to solve complex prob **Semester Hours:** 3 to 3

ELED 5430 - Topics in Mathematics Education

An in-depth study of topics such as mathematics and learning, teaching perspectives and practices, mathematics curricula, mathematical topics in education (e.g., geometry, testing, arithmetic), mathematics labs, calculators and computers. (May be repeated **Semester Hours:** 3 to 3

ELED 5440 - Problem Solving and Geometry in the Elementary School

Covers problem solving, spatial visualization, informal geometry, and computer software with emphasis on incorporating these topics into the elementary curriculum. **Semester Hours:** 3 to 3

ELED 5450 - Social Studies in Elementary School

Review and analysis of current innovations and concept formation in the social studies. Involves student development and implementation of materials for trial in classroom instruction. **Semester Hours:** 3 to 3

ELED 5464 - Teaching About Ethnicity, Race and Prejudice

Designed to introduce the nature of racial and ethnic groups, prejudice, discrimination, and ethno violence. It also includes the teaching about these and related topics and deals with resolving problems of intergroup relations in schools and institutiona **Semester Hours:** 3 to 3

ELED 5470 - Introduction to Middle School

Covers history and philosophy of the middle school, organization plans, team teaching, integrating content areas, characteristics of the early adolescent, and classroom management. **Semester Hours:** 3 to 3

ELED 5480 - Museum Studies in Paleontology

A practical laboratory-based course covering aspects of museum studies related to paleontological collections. Students learn how to stabilize and prepare bones removed from fossil quarries; learn molding and casting techniques for bones and fossils; assi **Semester Hours:** 3 to 3

ELED 5490 - Middle School Curriculum

Explores the unique curriculum requirements of transient youth. Topics include team teaching, interdisciplinary curricula, flexible scheduling, basic skills development, guidance functions, fine arts, practical arts, industrial arts, career education, tea **Semester Hours:** 3 to 3

ELED 5510 - Teacher Leadership: Theory to Reality

Working with colleagues in schools to make a difference as a team member and a change agent requires knowledge and skills that are "more than teachers, yet different from administrators" (Danielson, 2006). This course will provide teachers with skill buil **Semester Hours:** 3 to 3

ELED 5520 - Teacher Leadership: Essential Knowledge

Teacher leaders need expertise about what constitutes a quality curriculum and how best to guide others to develop lessons with assessments that reflect essential standards. They use culturally responsive and differentiated teaching strategies to assure t **Semester Hours:** 3 to 3

ELED 5530 - Teacher Leadership: Vital Skills

Teacher leaders need skills in collaboration, facilitation and coaching in order to work with colleagues in ways that will optimally impact student learning. This course will provide theory and practice in models of adult learning, professional developmen **Semester Hours:** 3 to 3

ELED 5540 - Foundations of School Health Education

This course is an overview of the principles of behavior theory as they relate to health education in both theory and practice. The course will examine the characteristics of effective school-based health education programs. Issues of ethnicity, cultur **Semester Hours:** 3 to 3

ELED 5550 - Curriculum Materials in Health Education

This course will support the application of behavior theory as it applies to specific health content knowledge and skills. Special attention will be given to the skills, instructional strategies, and techniques needed to develop a culturally responsive **Semester Hours:** 3 to 3

ELED 5560 - Health Education Teaching Practices

The course provides an overview of health education teaching and learning strategies for use in school settings. Action research will be introduced and utilized as a method to examine current teaching practices. Role-play, student assessment devel **Semester Hours:** 3 to 3

ELED 5660 - Energy Education

Explores current energy problems. Students examine such topics as fuels from plants, fuels from wastes, fossil fuels, nuclear energy, wind energy, geothermal energy, solar energy, and energy conservation. Includes demonstration of available educations res **Semester Hours:** 3 to 3

ELED 5775 - Knowledge of Teaching

Designed for experienced teachers. This course assists them to update their knowledge of research on teaching and extend their use of research findings in their classroom teaching. Prereq: Teaching certificate. **Semester Hours:** 1 to 3

ELED 5780 - Storytelling

Explores the history, function, philosophy and techniques of storytelling. Includes collecting, selecting, preparing, developing and delivering stories. Research and resources are emphasized.

Semester Hours: 1 to 4

ELED 5800 - Curriculum Workshop for Elementary Teachers

Opportunity to work on projects and problems in the school in which the student is employed: conferences, study groups, discussion, and work in curriculum construction. Topics and credit hours vary. Prereq: 18 semester hours in education and teaching experience **Semester Hours:** 0.5 to 4

ELED 5840 - Independent Study

Semester Hours: 1 to 4

ELED 5910 - Advanced Practicum: Elementary

This course is not to be used as an independent study, it is to be used by students approved in advance by the director of teacher education. Prereq: Permission of instructor. Fulfills the student teaching requirement for students seeking a second endorsement **Semester Hours:** 1 to 4

ELED 5920 - Readings in Elementary Education

Semester Hours: 1 to 4

ELED 5930 - Internship in Elementary Education

Semester Hours: 1 to 8

ELED 6100 - Seminar: Elementary Education

Students work on individual topics and report orally and in writing. **Semester Hours:** 3 to 3

ELED 6110 - Science and Math Curriculum Studies

Students examine frameworks for curriculum design, discuss the psychological and philosophical foundations of curricula, and analyze the curriculum that they use in their own teaching. Students synthesize what teachers must do in order to effectively implement **Semester Hours:** 3 to 3

ELED 6120 - International Perspectives on the Curriculum

Considers schooling patterns in the U.S., the U.K., Japan, Australia and several European countries. Examines different approaches to curriculum issues in relation to social, historical and economic factors. Prereq: FNDS 5500 or permission of instructor. **Semester Hours:** 3 to 3

ELED 6600 - Special Topics: Laboratory in Educational Leadership and Innovation

Laboratories are organized by professors to engage students in on-going research programs. They provide opportunities for students to extend and apply knowledge and skills developed in course work. The laboratories enable students to complete portfolio requirements **Semester Hours:** 1 to 6

ELED 6950 - Master's Thesis

Semester Hours: 4 to 4

ELED 7600 - Special Topics: Laboratory in Educational Leadership and Innovation

Laboratories are organized by professors to engage students in on-going research programs. They provide opportunities for students to extend and apply knowledge and skills developed in course work. The laboratories enable students to complete portfolio re **Semester Hours:** 1 to 6

ELED 7840 - Independent Study: ELED

Semester Hours: 1 to 3

English Courses (ENGL)

ENGL 1010 - Writing Workshop

Focuses on the abilities and skills needed to write effective expository prose. Emphasizes frequent writing, both in and out of class, with special attention to writing short essays well. Writers learn to write confidently at the sentence and paragraph levels, and to develop their grammatical and mechanical skills. **Semester Hours:** 3 to 3

ENGL 1020 - Core Composition I

Provides opportunities to write for different purposes and audiences, with an emphasis on learning how to respond to various rhetorical situations; improving critical thinking, reading, and writing abilities; understanding various writing processes; and gaining a deeper knowledge of language conventions. **Semester Hours:** 3 to 3

ENGL 1050 - Vocabulary for Professionals

Studies English words derived from Latin and Greek by analyzing their component parts (prefixes, stems, and suffixes). Cross-listed with LATN 1050. **Semester Hours:** 3 to 3

ENGL 1111 - Freshman Seminar

Semester Hours: 1 to 3

ENGL 1200 - Introduction to Fiction

Introduces class members to the works of famous authors as well as to major themes, elements, and techniques of fiction in both short stories and novels. **Semester Hours:** 3 to 3

ENGL 1400 - Literary Studies

Helps students develop a sense of literary techniques and issues so they can bring an improved critical sensibility to their reading and writing. Note: Designed for students who are seriously interested in literature. Prereq or Coreq: ENGL 1020. **Semester Hours:** 3 to 3

ENGL 1601 - Telling Tales: Narrative Art in Literature and Film

Asks students to explore how stories determine who we are. Everything people do fits into a narrative pattern, evident everywhere from TV news to memory to daily schedules. We tell ourselves stories about ourselves and others--how do these stories shape who we are as cultural beings? Prereq or Coreq: ENGL 1020. **Semester Hours:** 3 to 3

ENGL 2030 - Core Composition II

Focuses on academic and other types of research-based writing and builds on the work completed in ENGL 1020. Focuses on critical thinking, reading and writing as well as working with primary and secondary source material to produce a variety of research-based essays. Emphasis on using both print-based and electronic-based information. Prereq: ENGL 1020. **Semester Hours:** 3 to 3

ENGL 2060 - Introduction to Writing Studies

Introduces students to the topics of study in the English Writing major. Topics include writing studies (literacy, genre, research, and multimodality), rhetoric (history and theory), and the teaching of writing (pedagogy and practice). Prereq: ENGL 1020 **Semester Hours:** 3 to 3

ENGL 2070 - Grammar, Rhetoric and Style

Teaches the basics of English grammar in order to develop a rhetorical and stylistic confidence in reading and writing, using an approach that is more descriptive than prescriptive. Teaches students how to evaluate the grammatical choices of established writers and how to develop flexibility in the grammatical choices they make in their own writing. Prereq: ENGL 1020 or equivalent. **Semester Hours:** 3 to 3

ENGL 2154 - Introduction to Creative Writing

Reading, discussing, writing short fiction and poetry in a workshop setting. Prereq: ENGL 1020. **Semester Hours:** 3 to 3

ENGL 2250 - Introduction to Film

Introduces students to the critical study of cinema as an art form and a cultural phenomenon. Topics include cinematography, editing, mise-en-scene and sound; the connections between cinema and related art forms; film genres; the social dimensions of film production and reception; and films by such key filmmakers as Alfred Hitchcock, Maya Deren and Spike Lee. **Semester Hours:** 3 to 3

ENGL 2300 - Topics in Literature and Film

Courses supplement the regular program of the department, offering such topics as: literary perceptions of motherhood, Asian-American literature, literary classics of science, and contemporary women writers. Note: Can be taken more than once if topics vary. **Semester Hours:** 3 to 3

ENGL 2310 - Topics in Literature and Film

Semester Hours: 3 to 3

ENGL 2320 - Topics in Literature and Film

Semester Hours: 3 to 3

ENGL 2330 - Topics in Literature and Film

Semester Hours: 3 to 3

ENGL 2340 - Topics in Literature and Film

Semester Hours: 3 to 3

ENGL 2390 - Writing the Short Script

Examines narrative screenwriting elements--premise, theme, conflict, protagonist/antagonist, setting/situation, dialogue, plot structure, imagery--required to create a strong narrative short film. Prereq: ENGL 1020. **Semester Hours:** 3 to 3

ENGL 2415 - Introduction to Movie Writing

Examines structural and dramatic elements required to write a feature-length screenplay. Students conceptualize, plan, write and then re-write to complete the first ten pages of their own feature-length screenplay. **Semester Hours:** 3 to 3

ENGL 2450 - Introduction to Literature

Provides the terms and skills for analyses of a variety of narratives. Develops critical thinking, reading, and writing necessary for succeeding in the discipline. Prereq: ENGL 1020. Note: required introductory course for English majors, English minors, and English education. **Semester Hours:** 3 to 3

ENGL 2510 - Greek and Roman Mythology

Surveys influential literature from Greece and Rome. Among the Greek works are Homer's epics, Sophocles's tragedies, Plato's and Aristotle's philosophical writings. Among the Roman works are the writings of Vergil, Ovid, the elegists and historians. a brief look at Augustine's writings concludes the course. **Semester Hours:** 3 to 3

ENGL 2520 - The Bible as Literature

Introduces students to biblical literature. Selections from the various genres of writing in Hebrew (history, wisdom, prophecy, literature) are read and discussed, as well as representative sections from the New Testament, including the gospels and the writings of Paul. Cross-listed with RLST 2700. **Semester Hours:** 3 to 3

ENGL 2600 - Great Works in British and American Literature

Traces the traditions of British and American literature from medieval times to the present, by examining a variety of texts, studying the impact of different time periods, and cultural movements on the evolving literary tradition. **Semester Hours:** 3 to 3

ENGL 2840 - Independent Study: ENGL

Semester Hours: 1 to 3

ENGL 3001 - Critical Writing

Introduces literary theory to provide extensive practice in writing about literature. Note: Required of English majors and minors with a literature option and education English majors. Prereq: ENGL 2450. **Semester Hours:** 3 to 3

ENGL 3020 - Poetry Workshop

Practical workshop for developing poetic craft, focusing on writing process and specialized topics. **Semester Hours:** 3 to 3

ENGL 3050 - Fiction Workshop

Beginning workshop for defining and developing narrative craft, focusing on writing process and specialized topics. **Semester Hours:** 3 to 3

ENGL 3070 - Film History I

Examines the history of cinema from its 19th-century origins until the early sounds era. Explores important developments and influences in American and international cinema, including the origins of Hollywood narrative, avant-garde cinema, German Expressionism, and Soviet Cinema. Prereq: Must have 30 semester hours or permission of the instructor. **Semester Hours:** 3 to 3

ENGL 3075 - Film Genres

An intensive study of films of one or more significant genres, such as comedy, film noir, science fiction. Prereq: Must have 30 semester hours or permission of the instructor. Note: May be taken more than once when genres vary. **Semester Hours:** 3 to 3

ENGL 3080 - Film History II

Examines world cinema from 1938 to the present, with examples from major movements and directors--such as Film Noir, Italian Neo-Realism, the French New Wave, Jean Renoir, Agnes Varda, John Ford, Alfred Hitchcock and Werner Herzog. Prereq: Must have 30 semester hours or permission of the instructor. **Semester Hours:** 3 to 3

ENGL 3084 - Multimedia Composition

Offers students opportunities to examine and compose texts where language is integrated with other media, such as video, still images, music, etc. Includes basic instruction in digital multimedia composition and design tools. ENGL 2070 recommended. Prereq: Must have completed 45 credit hours. **Semester Hours:** 3 to 3

ENGL 3085 - Film Directors

An intensive study of the films of one or more major directors, such as Chaplin, Keaton, Hitchcock, Welles, Coen Brothers. Prereq: Must have 30 semester hours or permission of the instructor. Note: May be taken more than once when directors vary. **Semester Hours:** 3 to 3

ENGL 3106 - Advocate Practicum

Hands-on course introduces writers to the UCD student newspaper "The Advocate," and allows students to write and edit more effectively. Students work with faculty, professionals, and student editors to practice and produce writing for actual publication. Prereq: ENGL 2030. **Semester Hours:** 3 to 3

ENGL 3154 - Technical Writing

Introduces the study and writing of technical documents. Emphasizes the processes, style, structure, and forms of technical writing. Attention is paid to audience analysis, organization, clarity and precision. ENGL 2070 recommended. Prereq: Must have completed 45 credit hours. **Semester Hours:** 3 to 3

ENGL 3160 - Language Theory

Provides a basic introduction to linguistics and language theory, including phonetics, grammar, semantics, pragmatics, sociolinguistics, cognitive processing, and language acquisition. Includes

practical applications of the theories and methodologies presented. ENGL 2070 recommended. Prereq: Must have completed 45 credit hours. **Semester Hours:** 3 to 3

ENGL 3170 - Business Writing

Focuses on the strategies and techniques of business writing, with emphasis on reader, message and form. ENGL 2070 recommended. Prereq: Must have completed 45 credit hours. **Semester Hours:** 3 to 3

ENGL 3200 - From Literature to Film

Explores the relationship between literature and cinema; the process of adapting and transforming a novel into a feature-length film; and the historical, cultural, and commercial influences that shaped the creation of each novel and film studied. Prereq: Must have 30 semester hours or permission of the instructor. **Semester Hours:** 3 to 3

ENGL 3300 - Topics in Film

Courses supplement the department's regular course offerings. Recent topics have included women and film, movies as history and film comedy. Prereq: Must have 30 semester hours or permission of the instructor. Note: Open to both majors and non-majors. Can **Semester Hours:** 3 to 3

ENGL 3310 - Topics in Film

Semester Hours: 3 to 3

ENGL 3320 - Topics in Film

Semester Hours: 3 to 3

ENGL 3330 - Topics in Literature

Courses supplement the department's regular course offerings. Recent topics have included Tolkien and international short stories. Prereq: Must have 30 semester hours or permission of the instructor. Note: Open to both majors and non-majors. Can be taken more than once when topics vary. **Semester Hours:** 3 to 3

ENGL 3340 - Topics in Literature

Semester Hours: 3 to 3

ENGL 3350 - Topics in Literature

Semester Hours: 3 to 3

ENGL 3405 - Topics in Writing

Semester Hours: 3 to 3

ENGL 3415 - Screenwriting Workshop

Continues and expands ENGL 2415. By the end of ENGL 3415, students have completed the first two acts of their screenplay. Note: May be repeated a second time in a different semester to complete entire screenplay. **Semester Hours:** 3 to 3

ENGL 3416 - Magazine Writing

An intensive, practical course in writing non-fiction with an emphasis on journalistic approaches for daily, weekly, and monthly publications. Prereq: ENGL 1020. **Semester Hours:** 3 to 3

ENGL 3417 - Writing for the Mass Media

Students will examine public relations writing techniques and journalistic style, public relations theory and ethics, and practical client work. Prereq: ENGL 1020. **Semester Hours:** 3 to 3

ENGL 3450 - Twentieth Century Women Writers

Examines how women write about a specific theme, such as home, work, family, the "Other," as well as how women's writing may differ from men's. Theme and genre vary. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with WGST 3450. **Semester Hours:** 3 to 3

ENGL 3480 - Modern Drama

How does drama change from the pioneering realism of Ibsen and Chekhov to the Absurdism of Ionesco and Pinter and beyond? The course covers plays in English and translation from the late nineteenth to the twenty-first century, with attention to performance as well as literary texts. Prereq: Must have 30 hours or the permission of the instructor. **Semester Hours:** 3 to 3

ENGL 3520 - Religious Narratives

Investigates the language and structure of religious discourse in Western literature. Welcomes interdisciplinary and comparative perspectives with a focus on cultural constructions of the sacred. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with RLST 3720. **Semester Hours:** 3 to 3

ENGL 3661 - Shakespeare

Introduces some of Shakespeare's major plays and poems, which usually includes Richard II, Romeo and Juliet, Measure for Measure, Othello, King Lear, Anthony and Cleopatra and The Tempest. Prereq: Must have 30 semester hours or permission of the instructor. **Semester Hours:** 3 to 3

ENGL 3700 - American Literature to the Civil War

Surveys American literature from the colonial era to the Civil War. Prereq: ENGL 1020. **Semester Hours:** 3 to 3

ENGL 3750 - American Literature after the Civil War

Surveys American literature from the Civil War to the contemporary era. Prereq: ENGL 1020. **Semester Hours:** 3 to 3

ENGL 3795 - Race and Ethnicity in American Literature

Focuses alternately on one of several ethnic American literary traditions (e.g. African American, Chicano) and their historical, geographical, social and economic communities. **Semester Hours:** 3 to 3

ENGL 3798 - International Perspectives in Literature and Film

Fosters an understanding of peoples outside of the U.S. through the study and appreciation of non-western literature. Investigates how historical, cultural, and ideological forces constitute race, ethnicity, nationalism, and alienation in a single country or across a region. Topic and country/region varies by semester. Note: May be repeated for credit when title and content are different. All texts in English translation. **Semester Hours:** 3 to 3

ENGL 3840 - Independent Study: ENGL

Prereq: Must have 30 semester hours or permission of the instructor. **Semester Hours:** 1 to 3

ENGL 3939 - Internship

Employment situations designed and supervised by members of the faculty; concepts and skills developed in the classroom are used in business and public service contexts. Prereq: Junior standing and 2.75 grade-point average. Before enrolling, students should contact the Career Center. Note: Up to six hours may be counted toward the major. **Semester Hours:** 1 to 3

ENGL 3995 - Travel Study

An intensive course focusing on cinematic, literary, or rhetorical topics enriched through travel. Subtitles reflect specific area of concentration. Students may repeat course with different topics. Registration is through the Office of International Affairs. **Semester Hours:** 3 to 6

ENGL 4000 - Studies of Major Authors

An intensive study of works of one major British or American author. Examples: Dickens, Woolf or James. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5000. **Semester Hours:** 3 to 3

ENGL 4025 - Advanced Poetry Workshop

Advanced poetic craft, including exercises in mode, genre and advanced revision. Prereq: ENGL 3020 (or equivalent) for English majors and minors only; all others must obtain permission of instructor. **Semester Hours:** 3 to 3

ENGL 4055 - Advanced Fiction Workshop

Advanced workshop for developing and deepening narrative craft, focusing on writing process and specialized topics. Prereq: ENGL 3050, English major and minor only; all others must obtain permission of instructor. **Semester Hours:** 3 to 3

ENGL 4080 - History of English Language

Examines how English has changed since A.D. 800 through examples of writing from different periods, with attention to the way various groups have enriched our vocabulary and altered our syntax. Prereq: ENGL 2070 or one year of a college foreign language. Cross-listed with ENGL 5080. **Semester Hours:** 3 to 3

ENGL 4088 - Literary Editing: Copper Nickel

Literary editing in theory and practice, using UCD's nationally recognized journal "Copper Nickel." Topics may include evaluating fiction, poetry and nonfiction; design and aesthetics; line

editing; the business of literary journals. Prereq: ENGL 3020 or 3050, or permission of instructor. **Semester Hours:** 3 to 3

ENGL 4160 - Poetics

"Mechanics" of poetry in English, including meter, rhythm, rhyme, line, and other systems of measurement and logic. Emphasis is on historical development of poetic art in English. Prereq: ENGL 1400 or permission of instructor. Cross-listed with ENGL 5160. **Semester Hours:** 3 to 3

ENGL 4166 - History of American Poetry

Examines major American poets and poetic trends from the colonial period to the present, with attention to cultural contexts and to development of distinctively American practices. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5166. **Semester Hours:** 3 to 3

ENGL 4180 - Argumentation and Logic

Explores the history of logic and its role in argumentation, studies various types of logical structures, and analyzes current uses of argumentation, with attention to writing arguments on current public issues. ENGL 3084 recommended. Prereq: Must have completed 60 credit hours. **Semester Hours:** 3 to 3

ENGL 4190 - Special Topics in Rhetoric and Writing

Focuses on particular issues in rhetoric and writing as they pertain to reading and writing, including language and gender, language and culture, and language of political action. ENGL 3084 recommended. Prereq: Must have completed 60 semester hours. Cross-listed with ENGL 5190. **Semester Hours:** 3 to 3

ENGL 4200 - History of the English Novel I

Rise and development of the English novel from its beginnings in the 18th century through the mid-19th century, including such writers as Defoe, Fielding, Austen and Shelley. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5200. **Semester Hours:** 3 to 3

ENGL 4210 - History of the English Novel II

Overview of the English novel from mid-19th century to World War II, emphasizing the important developments which the form underwent in the hands of notable novelists, including Charles Dickens, the Brontes, George Eliot, Henry James, Joseph Conrad, D.H. Lawrence and Virginia Woolf. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5210. **Semester Hours:** 3 to 3

ENGL 4220 - African-American Literature

Surveys African-American literature with special emphasis on post-Civil War writing. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5220, ETST 4220. **Semester Hours:** 3 to 3

ENGL 4230 - The American Novel

Surveys major developments in the American novel from the 18th century to the 21st century. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5230. **Semester Hours:** 3 to 3

ENGL 4235 - Faulkner

Studies the works of Faulkner's high period with special attention to southern themes and Faulkner's experimentation with narrative form. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5235. **Semester Hours:** 3 to 3

ENGL 4236 - The American Short Story

Traces the development of the short story in the United States, from its beginnings in colonial tales to its contemporary renaissance as a dominant literary form. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5236. **Semester Hours:** 3 to 3

ENGL 4240 - Topics in Contemporary American Literature

Seminar focusing on a segment of contemporary American literature. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5240. **Semester Hours:** 3 to 3

ENGL 4250 - Twentieth Century Fiction

Deals with novels originating in a variety of countries in an effort to see the similarities and differences that varying nationalities bring to the genre. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5250. **Semester Hours:** 3 to 3

ENGL 4280 - Proposal and Grant Writing

Focuses on research, design, composition, and editing original proposals. Includes idea development, identification of funding sources, and the creation of persuasive documents. ENGL 3084 recommended. Prereq: Must have completed 60 semester hours. Cross-listed with ENGL 5280. **Semester Hours:** 3 to 3

ENGL 4290 - Rhetoric and the Body

Investigates the relationship between rhetoric and the body, with attention to theoretical and practical implications. Welcomes interdisciplinary perspectives, and often considers rhetorical topics from historical, medical, disability studies, economic, and/or gendered perspectives. **Semester Hours:** 3 to 3

ENGL 4300 - History of British Drama

Intended as a survey of British drama from the miracle plays of the medieval period, through the Renaissance and Restoration, to the "kitchen sink" realists of the 1960s. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5300. **Semester Hours:** 3 to 3

ENGL 4306 - Survey of Feminist Thought

Examines changes and continuities in feminist thought from the 18th century to the present, using historical and literary materials. Explores the ways that women's characteristics, experiences, and capabilities have been understood and challenged. Cross-listed with ENGL 5306, HIST 4306, 5306, WGST 4306, 5306. **Semester Hours:** 3 to 3

ENGL 4320 - History of Poetry in English

Studies the major schools and eras of English prosody, including the poetry of Great Britain and the United States, from the medieval period to the present. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5320. **Semester Hours:** 3 to 3

ENGL 4350 - History of American Drama

Studies American drama from its foundations in the 18th century through movements including realism, expressionism, symbolism, agit-prop, black nationalism, feminism, and performance art. Drama read as both text and performance, as sometimes supporting the status quo and as sometimes subverting it. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5350. **Semester Hours:** 3 to 3

ENGL 4400 - Old English I

Instruction in the Old English language. Prereq: Must have 30 semester hours or permission of the instructor. One year of college foreign language or ENGL 2070 recommended. Cross-listed with ENGL 5400. **Semester Hours:** 3 to 3

ENGL 4410 - Old English II: Beowulf

Continuing training in the reading of Old English and intensive reading of Beowulf. Prereq: ENGL 4400 or 5400. Cross-listed with ENGL 5410. **Semester Hours:** 3 to 3

ENGL 4420 - Film Theory and Criticism

(1) Familiarizes students with some of the central concepts and debates in film theory and criticism, both classic and contemporary, (2) enables students to develop advanced analytic and interpretive skills, and (3) guides students toward discovering and articulating original critical and theoretical perspectives. Prereq: ENGL 2250 and 3070, 3080 or permission of instructor. Cross-listed with ENGL 5420. **Semester Hours:** 3 to 3

ENGL 4460 - Contemporary World Literature

Surveys literature written by world writers since World War II. Prereq: Must have 30 semester hours or permission of the instructor. Note: Texts read in English. Cross-listed with ENGL 5460. **Semester Hours:** 3 to 3

ENGL 4500 - Medieval Literature

Introduces representative writers from the Norman Conquest to about 1550. Emphasis on a variety of genres, including religious poetry, Arthurian romance, dream vision and drama. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5500. **Semester Hours:** 3 to 3

ENGL 4510 - Whores and Saints: Medieval Women

Studies how women are presented in texts, as well as works by women. Investigates the roles open to women and societal attitudes toward women, who were considered seductresses, saints, scholars and warriors in the middle ages. Prereq: Nine hours of literature courses or instructor permission. Cross-listed with ENGL 5510, RLST 4730/5730, WGST 4510/5510. **Semester Hours:** 3 to 3

ENGL 4520 - English Renaissance

Introduces some of the important writers in this major period of English literature (1500-1660). Special attention to the works of Sidney, Milton, Spenser, Shakespeare, Donne, Herbert and Johnson. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5520. **Semester Hours:** 3 to 3

ENGL 4530 - Milton

Extensive reading in John Milton's poetry (Lycidas, Paradise Lost, Paradise Regained, Samson Agonistes) as well as his political, social and theological writings. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5530. **Semester Hours:** 3 to 3

ENGL 4540 - Restoration and the 18th Century

Introduces some of the important writers of the "Age of Reason." Emphasis on such figures as Bunyan, Burke, Dryden, Johnson, Pope and Swift. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5540. **Semester Hours:** 3 to 3

ENGL 4560 - English Romanticism

Studies major works of the chief English writers of the first part of the 19th century, with emphasis on such representative figures as Wollstonecraft, Godwin, Blake, Wordsworth, Coleridge, Hazlitt, Byron, Keats and Shelley. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5560. **Semester Hours:** 3 to 3

ENGL 4580 - The Victorian Age

Examines the main currents of Victorian thought in prose and poetry from about 1830 to the end of the century, including such writers as Browning, Carlyle, Mill, Newman, Ruskin, Swinburne and Tennyson. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5580. **Semester Hours:** 3 to 3

ENGL 4600 - Modernism

Modernist literature from the beginning of the 20th century through World War II, including such writers as Eliot, Joyce, Forester, Ford, Yeats, Woolf and Barnes. Examines the social-political influences as well as the aesthetic and stylistic elements which define modernist writing. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5600. **Semester Hours:** 3 to 3

ENGL 4601 - Principles and Practices of Second Language Acquisition

Overview of basic principles and practices in the learning and teaching of English as a second language. ENGL 3160 recommended. Prereq: Must have completed 60 semester hours, or instructor permission. Cross-listed with ENGL 5601. **Semester Hours:** 3 to 3

ENGL 4610 - Narrative: Form and Theory

A critical and theoretical exploration of the elements of narrative -e.g., plot, character, dialogue, discourse-in literature and film. This course is especially useful for fiction-writing students in the Creative Writing Track. Prereq: ENGL 2450. Cro **Semester Hours:** 3 to 3

ENGL 4651 - Second Language Writing

Topics include: similarities between first & second language writing, the processes of composition & revision, teacher response to student writing, student processing of feedback, writing assessment, and the reading/writing connection. ENGL 3160 recommended. Prereq: Must have completed 60 credit hours. Cross-listed with ENGL 5651. **Semester Hours:** 3 to 3

ENGL 4720 - Honors in English

Designed for students taking departmental honors in English. Prereq: Students must have written permission from the honors advisor. **Semester Hours:** 1 to 3

ENGL 4730 - Chaucer

Extensive reading in Chaucer's works in Middle English, including his lyrics, dream visions, Troilus and Criseyde, and the Canterbury Tales. Examines sources, historical and ideological factors influencing the texts. Prereq: 30 semester hours or permission of the instructor. Cross-listed with ENGL 5730. **Semester Hours:** 3 to 3

ENGL 4735 - Philosophy and Literature

Considers the philosophical dimensions of literature. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5735, PHIL 4730, 5730. **Semester Hours:** 3 to 3

ENGL 4740 - Honors in Writing

Designed for students taking departmental honors in English writing. Prereq: Student must have written permission from honors director and faculty advisor. **Semester Hours:** 1 to 3

ENGL 4745 - Humanistic Writing About Medicine and Biology

Investigates medical and biological writing over the last two centuries with an emphasis on reception, ethical issues, and the differences between professional and popular writing. Prereq: Must have 30 hours or the permission of the instructor for ENGL 4745. Cross-listed with 5745. **Semester Hours:** 3 to 3

ENGL 4770 - Topics in English: Film and Literature

May look at specific genres, aesthetic approaches to literature, ideological or socio-political agendas, or other special topics in literature and/or film. Prereq: Must have 30 semester hours or permission of the instructor. Cross-listed with ENGL 5770. **Semester Hours:** 3 to 3

ENGL 4800 - Special Topics in Creative Writing

Writing-intensive courses combining reading, directed writing, peer- and instructor-led workshops in a topic to be determined by instructor. Topics may include projects in a specialized genre, such as science fiction or noir writing, or in a field of prof **Semester Hours:** 3 to 3

ENGL 4810 - Literary Editing Practicum

Practicum for students interested in editing in a literary field, e.g., literary magazines, book manuscripts, anthology projects. Each semester the parameter of the practicum will be set by the instructor. Prereq: English majors and minors. All other **Semester Hours:** 3 to 3

ENGL 4820 - Senior Poetry Workshop

Capstone workshop for students within the Creative Writing major track or Creative Writing minor. Emphasis on a single, sustained project developed by the student. Prereq: ENGL 3020 and 4025 for English majors. All other students must obtain permissio **Semester Hours:** 3 to 3

ENGL 4830 - Advanced Rhetorical Analysis

Immerses students in advanced methods for conducting rhetorical analysis and for reading critically. Students are expected to learn multiple frameworks for performing analysis on rhetorical artifacts. **Semester Hours:** 3 to 3

ENGL 4840 - Independent Study: ENGL

Semester Hours: 1 to 3

ENGL 4850 - Senior Fiction Workshop

Capstone workshop designed to deepen the understanding of narrative, and consciously apply the strategies of narrative craft to modern markets. Course will focus on the writing and publishing processes, culminating in a classroom narrative defense and sub **Semester Hours:** 3 to 3

ENGL 4920 - Directed Readings

Explores an area of English literature not covered in regular course work. Note: May be taken as a precursor to honors essay, in which case student should consult with the honors advisor. Prereq: Senior status. **Semester Hours:** 3 to 6

ENGL 4990 - Senior Writing Project in Creative Writing or Film Studies

Individual writing project consisting of a creative manuscript or critical study. Manuscript must be 30 pages of high quality text. Note: Available only to students in the creative writing and film tracks. Prereq: Senior standing. **Semester Hours:** 3 to 3

ENGL 4991 - Senior Seminar in Writing

Students focus on rhetorical studies through extensive reading, writing, discussion, and reflection upon their own literacy practices. Students produce individual and collaborative writing projects for a final portfolio. Prereq: ENGL 3084, senior standing and EWRT majors. **Semester Hours:** 3 to 3

ENGL 4995 - Senior Writing Project

Individual writing project in any genre and any discipline upon approval of faculty advisor. Manuscript must be 30 pages of high quality text. Prereq: Senior standing. **Semester Hours:** 3 to 3

ENGL 4999 - Literary Studies Senior Seminar

Allows students to pursue, learn, and apply advanced methodologies such as bibliographical, archival/historical, or cultural and ideological, and apply them to a single author, genre, or period of text. Students engage in research under the tutelage of th **Semester Hours:** 3 to 3

ENGL 5000 - Studies of Major Authors

An intensive study of works of one major British or American author. Examples: Dickens, Woolf or James. Cross-listed with ENGL 4000. **Semester Hours:** 3 to 3

ENGL 5001 - Special Topics

This variable credit course offers intensive study of the teaching of writing in a collaborative action-oriented approach. **Semester Hours:** 1 to 6

ENGL 5080 - History of the English Language

Examines how English has changed since A.D. 800 through examples of writing from different periods, with attention to the way various groups have enriched our vocabulary and altered our syntax. Prereq: ENGL 2070 or one year of a college foreign language. Cross-listed with ENGL 4080. **Semester Hours:** 3 to 3

ENGL 5093 - Teaching of Writing

Deals with the analysis of rhetorical theory with an emphasis on practical applications in the classroom, with attention to alternative pedagogies in teaching. **Semester Hours:** 3 to 3

ENGL 5100 - Literary Research and Writing

Designed to prepare students for graduate scholarship and writing in literature; should be taken soon after entering the program. Introduction to the research methodologies of literary scholarship as well as the practical strategies and the formal and stylistic standards for writing graduate-level analytical-interpretive essays. Prereq: Must be enrolled or accepted into the MA in English, Literature Option program. **Semester Hours:** 3 to 3

ENGL 5110 - Denver Writing Project

An intensive extended workshop in the development of one's personal and professional writing and in the teaching of writing. Open to those who are members of the Denver Writing Project. **Semester Hours:** 3 to 9

ENGL 5120 - Denver Writing Project Advanced Institute

Advanced institutes provide intensive examination of an issue related to the teaching of writing. The specific issues are of two kinds--repeatable ones such as "Alumni Institute" and "Writing Retreat" and variable, such as "Action Research" and "Writing Across the Curriculum." **Semester Hours:** 1 to 1

ENGL 5150 - Research Methods

Designed to prepare students for graduate scholarship in language, literacy, and the teaching of writing; should be taken soon after entering the program. Introduction to the research methods and stylistic standards for graduate-level writing. Prereq: graduate student standing **Semester Hours:** 3 to 3

ENGL 5160 - Poetics

"Mechanics" of poetry in English, including meter, rhythm, rhyme, line, and other systems of measurement and logic. Emphasis is on historical development of poetic art in English. Prereq: ENGL 1400 or permission of instructor. Cross-listed with ENGL 4160. **Semester Hours:** 3 to 3

ENGL 5166 - History of American Poetry

Examines major American poets and poetic trends from the colonial period to the present, with attention to cultural contexts and to development of distinctively American practices. Cross-listed with ENGL 4166. **Semester Hours:** 3 to 3

ENGL 5171 - Language Theory

Introduces linguistic theory to the beginning graduate student. Builds upon the material included in the undergraduate class, by adding materials pertaining to the teaching of writing and graduate language studies. **Semester Hours:** 3 to 3

ENGL 5190 - Special Topics in Rhetoric and Writing

Focuses on particular issues in rhetoric and writing as they pertain to reading and writing, including language and gender, language and culture, and language of political action. Cross-listed with ENGL 4190. **Semester Hours:** 3 to 3

ENGL 5200 - History of the English Novel I

Rise and development of the English novel from its beginnings in the 18th century through the mid-19th century, including such writers as Defoe, Fielding, Austen and Shelley. Cross-listed with ENGL 4200. **Semester Hours:** 3 to 3

ENGL 5210 - History of the English Novel II

Overview of the English novel from mid-19th century to World War II, emphasizing the important developments which the form underwent in the hands of notable novelists, including Charles Dickens, the Brontës, George Eliot, Henry James, Joseph Conrad, D.H. Lawrence and Virginia Woolf. Cross-listed with ENGL 4210. **Semester Hours:** 3 to 3

ENGL 5220 - African-American Literature

Surveys African-American literature with special emphasis on post-Civil War writing. Cross-listed with ENGL 4220, ETST 4220. **Semester Hours:** 3 to 3

ENGL 5230 - The American Novel

Surveys major developments in the American novel from the 18th century to the 21st century. Cross-listed with ENGL 4230. **Semester Hours:** 3 to 3

ENGL 5235 - Faulkner

Studies the works of Faulkner's high period with special attention to southern themes and Faulkner's experimentation with narrative form. Cross-listed with ENGL 4235. **Semester Hours:** 3 to 3

ENGL 5236 - The American Short Story

Traces the development of the short story in the United States, from its beginnings in colonial tales to its contemporary renaissance as a dominant literary form. Cross-listed with ENGL 4236. **Semester Hours:** 3 to 3

ENGL 5240 - Topics In Contemporary American Literature

Seminar focusing on a segment of contemporary American literature. Cross-listed with ENGL 4240. **Semester Hours:** 3 to 3

ENGL 5250 - Twentieth Century Fiction

Deals with novels originating in a variety of countries in an effort to see the similarities and differences that varying nationalities bring to the genre. Cross-listed with ENGL 4250. **Semester Hours:** 3 to 3

ENGL 5280 - Proposal and Grant Writing

Focuses on research, design, composition, and editing original proposals. Includes idea development, identification of funding sources, and the creation of persuasive documents. Prereq: ENGL 1020. Cross-listed with ENGL 4280. **Semester Hours:** 3 to 3

ENGL 5300 - History of British Drama

Intended as a survey of British drama from the miracle plays of the medieval period, through the Renaissance and Restoration, to the "kitchen sink" realists of the 1960s. Cross-listed with ENGL 4300. **Semester Hours:** 3 to 3

ENGL 5306 - Survey of Feminist Thought

Examines changes and continuities in feminist thought from the 18th century to the present, using historical and literary materials. Explores the ways that women's characteristics, experiences, and capabilities have been understood and challenged. Cross-listed with ENGL 4306, HIST 4306, 5306, WGST 4306, 5306. **Semester Hours:** 3 to 3

ENGL 5320 - History of Poetry in English

Studies the major schools and eras of English prosody, including the poetry of Great Britain and the United States, from the medieval period to the present. Cross-listed with ENGL 4320. **Semester Hours:** 3 to 3

ENGL 5350 - History of American Drama

Studies American drama from its foundations in the 18th century through movements including realism, expressionism, symbolism, agit-prop, black nationalism, feminism, and performance art. Drama read as both text and performance, as sometimes supporting the status quo and as sometimes subverting it. Cross-listed with ENGL 4350. **Semester Hours:** 3 to 3

ENGL 5400 - Old English I

Instruction in the Old English language. One year of college foreign language or ENGL 2070 recommended. Cross-listed with ENGL 4400. **Semester Hours:** 3 to 3

ENGL 5410 - Old English II: Beowulf

Continuing training in the reading of Old English and intensive reading of Beowulf. Prereq: ENGL 5400 or 4400. Cross-listed with ENGL 4410. **Semester Hours:** 3 to 3

ENGL 5420 - Film Theory and Criticism

(1) Familiarizes students with some of the central concepts and debates in film theory and criticism, both classic and contemporary, (2) enables students to develop advanced analytic and interpretive skills, and (3) guides students toward discovering and articulating original critical and theoretical perspectives. Prereq: ENGL 2250 and 3070, 3080 or permission of instructor. Cross-listed with ENGL 4420. **Semester Hours:** 3 to 3

ENGL 5460 - Contemporary World Literature

Surveys literature written by world writers since World War II. Note: Texts read in English. Cross-listed with ENGL 4460. **Semester Hours:** 3 to 3

ENGL 5500 - Medieval Literature

Introduces representative writers from the Norman Conquest to about 1550. Emphasis on a variety of genres, including religious poetry, Arthurian romance, dream vision and drama. Cross-listed with ENGL 4500. **Semester Hours:** 3 to 3

ENGL 5510 - Whores and Saints: Medieval Women

Studies how women are presented in texts, as well as works by women. Investigates the roles open to women and societal attitudes toward women, who were considered seductresses, saints, scholars and warriors in the middle ages. Prereq: Nine hours of literature courses or instructor permission. Cross-listed with ENGL 4510, RLST 4730/5730, WGST 4510/5510. **Semester Hours:** 3 to 3

ENGL 5520 - English Renaissance

Introduces some of the important writers in this major period of English literature (1500-1660). Special attention to the works of Sidney, Milton, Spenser, Shakespeare, Donne, Herbert and Johnson. Cross-listed with ENGL 4520. **Semester Hours:** 3 to 3

ENGL 5530 - Milton

Extensive reading in John Milton's poetry (Lycidas, Paradise Lost, Paradise Regained, Samson Agonistes) as well as his political, social and theological writings. Cross-listed with ENGL 4530. **Semester Hours:** 3 to 3

ENGL 5540 - Restoration and the 18th Century

Introduces some of the important writers of the "Age of Reason." Emphasis on such figures as Bunyan, Burke, Dryden, Johnson, Pope and Swift. Cross-listed with ENGL 4540. **Semester Hours:** 3 to 3

ENGL 5560 - English Romanticism

Studies major works of the chief English writers of the first part of the 19th century, with emphasis on such representative figures as Wollstonecraft, Godwin, Blake, Wordsworth, Coleridge, Hazlitt, Byron, Keats and Shelley. Cross-listed with ENGL 4560. **Semester Hours:** 3 to 3

ENGL 5580 - The Victorian Age

Examines the main currents of Victorian thought in prose and poetry from about 1830 to the end of the century, including such writers as Browning, Carlyle, Mill, Newman, Ruskin, Swinburne and Tennyson. Cross-listed with ENGL 4580. **Semester Hours:** 3 to 3

ENGL 5600 - Modernism

Modernist literature from the beginning of the 20th century through World War II, including such writers as Eliot, Joyce, Forester, Ford, Yeats, Woolf and Barnes. Examines the social-political influences as well as the aesthetic and stylistic elements which define modernist writing. Cross-listed with ENGL 4600. **Semester Hours:** 3 to 3

ENGL 5601 - Principles and Practices of Second Language Acquisition

Overview of basic principles and practices in the learning and teaching of English as a second language. Cross-listed with ENGL 4601. **Semester Hours:** 3 to 3

ENGL 5610 - Narrative: Form and Theory

A critical and theoretical exploration of the elements of narrative -e.g., plot, character, dialogue, discourse-in literature and film. This course is especially useful for fiction-writing students in the Creative Writing Track. Prereq: Graduate standi **Semester Hours:** 3 to 3

ENGL 5650 - American Literature to the Civil War

Graduate survey of American literature from the Colonial period to the Civil War, with particular attention to the question of what makes this literature distinctly American. Explores a wide range of genres of American literature in an effort to assess how this tradition of letters shaped our historical past and continues to influence contemporary American culture and ideology. Prereq: Graduate standing. **Semester Hours:** 3 to 3

ENGL 5651 - Second Language Writing

Topics include the similarities between first and second language writing, the processes of composition and revision, teacher response to student writing, student processing of feedback, writing assessment, and the reading or writing connection. Cross-listed with ENGL 4651.

Semester Hours: 3 to 3

ENGL 5655 - American Literature: Civil War to the Cold War

Graduate survey of American literature from the Civil War to the Cold War considered central to the tradition of American literature. Students will consider how new ideas about gender, race, class, nationality, postcoloniality, history, and aesthetics have influenced the field of American literary studies. Prereq: Graduate standing. **Semester Hours:** 3 to 3

ENGL 5730 - Chaucer

Extensive reading in Chaucer's works in Middle English, including his lyrics, dream visions, Troilus and Criseyde, and the Canterbury Tales. Examines sources, historical and ideological factors influencing the texts. Prereq: 30 semester hours or permission of the instructor. Cross-listed with ENGL 4730. **Semester Hours:** 3 to 3

ENGL 5735 - Philosophy and Literature

Considers the philosophical dimensions of literature. Cross-listed with ENGL 4735, PHIL 5730, 4730. **Semester Hours:** 3 to 3

ENGL 5745 - Humanistic Writing About Medicine and Biology

Investigates medical and biological writing over the last two centuries with an emphasis on reception, ethical issues, and the differences between professional and popular writing. Prereq: Must have 30 hours or the permission of the instructor for ENGL 4745. Cross-listed with ENGL 4745. **Semester Hours:** 3 to 3

ENGL 5770 - Topics in English: Film and Literature

May look at specific genres, aesthetic approaches to literature, ideological or socio-political agendas, or other special topics in literature and/or film. Cross-listed with ENGL 4770.

Semester Hours: 3 to 3

ENGL 5840 - Independent Study: ENGL

Semester Hours: 1 to 3

ENGL 5913 - Practicum in Language and Rhetoric

Supervised work in applied language or rhetoric and the teaching of writing. **Semester Hours:** 1 to 3

ENGL 5939 - Internship

Semester Hours: 1 to 3

ENGL 6001 - Critical Theory in Literature and Film

Designed to enrich students' understanding of a variety of modes of theoretical discourse that have influenced modern critical practice in literary and film studies. While the course explores the evolution of criticism, it gives primary emphasis to recent developments. **Semester Hours:** 3 to 3

ENGL 6002 - Rhetorical Theory

Examines the principles and applications of rhetorical theory and its relationship to writing. **Semester Hours:** 3 to 3

ENGL 6010 - Studies of Major Authors

Note: May be repeated when topics vary. **Semester Hours:** 3 to 3

ENGL 6011 - Studies in Major Authors

Semester Hours: 3 to 3

ENGL 6012 - Studies in Major Authors

Semester Hours: 3 to 3

ENGL 6013 - Studies in Major Authors

Semester Hours: 3 to 3

ENGL 6014 - Studies in Major Authors

Semester Hours: 3 to 3

ENGL 6015 - Studies in Major Authors

Semester Hours: 3 to 3

ENGL 6016 - Studies in Major Authors

Semester Hours: 3 to 3

ENGL 6017 - Studies in Major Authors

Semester Hours: 3 to 3

ENGL 6018 - Studies in Major Authors

Semester Hours: 3 to 3

ENGL 6019 - Studies in Major Authors

Semester Hours: 3 to 3

ENGL 6090 - Studies in Major Authors

Semester Hours: 3 to 3

ENGL 6110 - Special Topics in Literature

An intensive study of specialized topics in English and/or American literature. Note: May be repeated when topics vary. **Semester Hours:** 3 to 3

ENGL 6111 - Special Topics in Literature

Semester Hours: 3 to 3

ENGL 6112 - Special Topics in Literature

Semester Hours: 3 to 3

ENGL 6113 - Special Topics in Literature

Semester Hours: 3 to 3

ENGL 6114 - Special Topics in Literature

Semester Hours: 3 to 3

ENGL 6115 - Special Topics in Literature

Semester Hours: 3 to 3

ENGL 6116 - Special Topics in Literature

Semester Hours: 3 to 3

ENGL 6117 - Special Topics in Literature

Semester Hours: 3 to 3

ENGL 6118 - Special Topics in Literature

Semester Hours: 3 to 3

ENGL 6119 - Special Topics in Literature

Semester Hours: 3 to 3

ENGL 6120 - Special Topics in Film

An intensive study of specialized topics in film. Note: May be repeated when topics vary.

Semester Hours: 3 to 3

ENGL 6121 - Special Topics in Film

Semester Hours: 3 to 3

ENGL 6122 - Special Topics in Film

Semester Hours: 3 to 3

ENGL 6123 - Special Topics in Film

Semester Hours: 3 to 3

ENGL 6124 - Special Topics in Film

Semester Hours: 3 to 3

ENGL 6125 - Special Topics in Film

Semester Hours: 3 to 3

ENGL 6126 - Special Topics in Film

Semester Hours: 3 to 3

ENGL 6127 - Special Topics in Film

Semester Hours: 3 to 3

ENGL 6128 - Special Topics in Film

Semester Hours: 3 to 3

ENGL 6129 - Special Topics in Film

Semester Hours: 3 to 3

ENGL 6840 - Independent Study

Semester Hours: 1 to 3

ENGL 6920 - Directed Readings

Offers graduate student's instruction on an individual basis. Serves as preparation for the MA (literature) comprehensive examination. **Semester Hours:** 3 to 3

ENGL 6950 - Master's Thesis

Semester Hours: 1 to 6

ENGL 6960 - Master's Project

Semester Hours: 1 to 6

ENGL 6970 - Portfolio Exam in Rhetoric and Teaching of Writing

In the portfolio exam, students prepare the culminating document of students' MA work, a portfolio combining reflection on work done at CU Denver with a forward look at students' career goals. **Semester Hours:** 3 to 3

Engineering Courses (ENGR)

ENGR 1000 - Introduction to Engineering

Introduces engineering profession, engineering design and practice; and the tools used by engineers to accomplish design. The specialties within engineering are described. Students are involved in application projects and use word processors, spreadsheets and engineering software. Note: ENGR 1000 cannot be substituted for ELEC 1201. Prereq: High school trigonometry. **Semester Hours:** 1 to 1

ENGR 1111 - Psychological and Social Implications of Technology

This course will explore the impact of technology and its advances on human beings from an emotional, psychological, and social perspective. Discussions will include ethical, moral, and multicultural implications of technological advances from a global perspective and will require students to critically analyze issues that arise from such advances. **Semester Hours:** 3 to 3

ENGR 1208 - Special Topics

Semester Hours: 3 to 3

ENGR 1218 - Special Topics

Semester Hours: 1 to 3

ENGR 1228 - Special Topics

Semester Hours: 1 to 3

ENGR 1238 - Special Topics

Semester Hours: 1 to 3

ENGR 1248 - Special Topics

Semester Hours: 1 to 3

ENGR 1258 - Special Topics

Semester Hours: 1 to 3

ENGR 1268 - Special Topics

Semester Hours: 1 to 3

ENGR 1278 - Special Topics

Semester Hours: 1 to 3

ENGR 1288 - Special Topics

Semester Hours: 1 to 3

ENGR 1298 - Special Topics

Semester Hours: 1 to 3

ENGR 2208 - Special Topics

Semester Hours: 1 to 3

ENGR 2218 - Special Topics

Semester Hours: 1 to 3

ENGR 2228 - Special Topics

Semester Hours: 1 to 3

ENGR 2238 - Special Topics

Semester Hours: 1 to 3

ENGR 2248 - Special Topics

Semester Hours: 1 to 3

ENGR 2258 - Special Topics

Semester Hours: 1 to 3

ENGR 2268 - Special Topics

Semester Hours: 1 to 3

ENGR 2278 - Special Topics

Semester Hours: 1 to 3

ENGR 2288 - Special Topics

Semester Hours: 1 to 3

ENGR 2298 - Special Topics

Semester Hours: 1 to 3

ENGR 3208 - Special Topics

Semester Hours: 1 to 3

ENGR 3218 - Special Topics

Semester Hours: 1 to 3

ENGR 3228 - Special Topics

Semester Hours: 1 to 3

ENGR 3238 - Special Topics

Semester Hours: 1 to 3

ENGR 3248 - Special Topics

Semester Hours: 1 to 3

ENGR 3258 - Special Topics

Semester Hours: 1 to 3

ENGR 3268 - Special Topics

Semester Hours: 1 to 3

ENGR 3278 - Special Topics

Semester Hours: 1 to 3

ENGR 3288 - Special Topics

Semester Hours: 1 to 3

ENGR 3298 - Special Topics

Semester Hours: 1 to 3

ENGR 3400 - Technology and Culture

Explores the cultural and political foundations of technology and the impact of technology upon the individual and society. Contributions to technological advances and the impact of technology on women and diverse ethnic groups are examined in the context of specific engineering designs and case studies. Prereq: One course in social sciences, one course in humanities, one course in science. (Satisfies the multicultural diversity requirement of the UCDHSC core curriculum).

Semester Hours: 3 to 3

ENGR 3600 - International Dimensions of Technology and Culture

This course provides students with an understanding of how science, technology and international issues interrelate in a world that has become more interconnected and interdependent. The course will focus on the technical, organizational and cultural aspects of information and other technologies with an emphasis on their impact on third world countries. Prereq: One course in social sciences, one course in humanities, one course in science. (Satisfies the international perspectives requirement of the UCDHSC core curriculum).

Semester Hours: 3 to 3

ENGR 3995 - Global Technology, Business & Culture

Semester Hours: 3 to 3 **When Offered:** *SUMMER*

ENGR 4150 - Seminar: Special Topics in Engineering

A flexible seminar format dealing with topics of special interest in engineering. Topics vary from semester to semester. Prereq: Senior standing. Cross-listed with ENGR 5150 and 7150.

Semester Hours: 0 to 1 **When Offered:** *FALL SPR*

ENGR 4208 - Special Topics

Semester Hours: 1 to 3

ENGR 4218 - Special Topics

Semester Hours: 1 to 3

ENGR 4228 - Special Topics

Semester Hours: 1 to 3

ENGR 4238 - Special Topics

Semester Hours: 1 to 3

ENGR 4248 - Special Topics

Semester Hours: 1 to 3

ENGR 4258 - Special Topics

Semester Hours: 1 to 3

ENGR 4268 - Special Topics

Semester Hours: 1 to 3

ENGR 4278 - Special Topics

Semester Hours: 1 to 3

ENGR 4288 - Special Topics

Semester Hours: 1 to 3

ENGR 4298 - Special Topics

Semester Hours: 1 to 3

ENGR 4840 - Independent Study

Semester Hours: 1 to 3

ENGR 5150 - Seminar: Special Topics in Engineering

A flexible seminar format dealing with topics of special interest in engineering on a graduate level. Topics vary from semester to semester. Prereq: Graduate standing. Cross-listed with ENGR 4150 and 7150. **Semester Hours:** 0 to 1 **When Offered:** *FALL SPR*

ENGR 5208 - Special Topics

Semester Hours: 1 to 3

ENGR 5301 - Systems Engineering: Principles and Practice

Semester Hours: 3 to 3

ENGR 5302 - Systems Engineering: Planning and Management

Semester Hours: 3 to 3

ENGR 5303 - Special Topics: Systems Engineering

Semester Hours: 3 to 3

ENGR 5800 - Long Range Infrastructure Planning and Design: Colorado 2050

The goal of this course is to equip students to address the problems of long term future resource limitation and its influence on urban infrastructure in Colorado. **Semester Hours:** 3 to 3

ENGR 7150 - Seminar: Special Topics in Engineering

A flexible seminar format dealing with topics of special interest in engineering on an advanced graduate level. Topics vary from semester to semester. Prereq: Graduate standing. Cross-listed with ENGR 4150 and 5150. **Semester Hours:** 0.5 to 0.5 **When Offered:** *FALL SPR*

Entrepreneurship Courses (ENTP)

ENTP 2550 - Introductory Accounting for Entrepreneurs and the Arts

An integration of financial and managerial accounting processes as they relate to Entrepreneurs, Arts & Media managers and similar applications. This course will cover the analysis and interpretation of financial statements, asset and liability valuation and the determination of net income. Incorporates the use of accounting information to make decisions focusing on cost behavior analysis, budgeting and product costing in entrepreneurial and arts related businesses. Prereq: MATH 1010, MATH 1110, or MATH 1070. Cross-listed with ACCT 2550. **Semester Hours:** 3 to 3

ENTP 3000 - Principles of Entrepreneurship

Focuses on the concepts, skills, know-how, practical information, attitudes and alternatives that are relevant for start-up companies. The materials are designed to enhance the student's capacity to anticipate HR, financial, marketing problems through the application of proper planning. The primary objective of the course is to teach participants the practical aspects of entrepreneurship in order to change the odds of success. **Semester Hours:** 3 to 3

ENTP 3120 - Legal Issues for Entrepreneurs

Skills in legal and factual analysis and the application of ethical theories are addressed with an emphasis on applicability for entrepreneurs. The cases are drawn from a variety of functional areas such as accounting, information systems, finance, management, marketing and production. Topics include: agency law, business organizations, securities, venture capital, employment law, real property, entrepreneurial aspects of intellectual property law, consumer law and international law. Note: For non business majors only. Does not count towards an Entrepreneurship certificate. Prereq: ENTP 3000 or equivalent. Cross-listed with BLAW 4120. **Semester Hours:** 3 to 3

ENTP 3780 - Preparing A Business Plan

This course is designed to assist students who want to turn their new business idea into a viable new business concept through the development of a comprehensive business plan. This course teaches the process and the key steps for preparing a business plan for a new business venture. A well developed business plan is critical to new venture success and includes the following: analysis of the potential demand for the product or service and the potential customers; identifies competitive advantages and strategies, and marketing strategies; generates pro forma financial projections; and, describes the management team needed successfully lead the business. Note: For nonbusiness majors only. Does not count towards business degree but does count towards Entrepreneurship Certificate. Prereq: ACCT 2200, and MKTG 3000 or MUSC 4750 or ENTP 3000. **Semester Hours:** 3 to 3

ENTP 4028 - Leadership and Entrepreneurship in Ireland

This 2-week course in Ireland provides students with an overview of key leadership principles for creating strategies and managing teams in new ventures in the US and abroad. This course provides the student with an overview of key leadership principles for creating strategy and managing teams in a new venture. It introduces leadership concepts critical to gaining true

organizational commitment, and focuses on case studies relevant to common business issues. By exploring what entrepreneurial leaders actually do, and how they do it, the student will examine the principles of strategic planning, and how visionary leadership is required to develop an organization that is able to execute the strategy through measurable goals and objectives. Cross-listed with INTB 4028 & 6028. **Semester Hours:** 3 to 3

ENTP 4950 - Special Topics

A variety of topics in entrepreneurship are offered. Consult the current "Schedule Planner" for semester offerings. Prereq: Topics vary. **Semester Hours:** 0 to 3

ENTP 6020 - The Business Plan

Business plan development which incorporates all key ingredients necessary for various users. Includes the ins and outs of business plans for new ventures through environmental scans of new business opportunities, case studies, by sharing the experience of entrepreneurs and investors that have been through the process and by writing a business plan, either individually or with a team of other students. **Semester Hours:** 3 to 3

ENTP 6021 - Corporate Entrepreneurship

This course considers innovation and new-business creation strategies from within an existing organization. It will explore various growth models intended to help organizations build their revenues in ways that are consistent with the business? Strategic orientation and constraints. **Semester Hours:** 3 to 3 **When Offered:** FALL

ENTP 6028 - Leadership and Entrepreneurship In Ireland

This 2-week course in Ireland provides students with an overview of key leadership principles for creating strategies and managing teams in new ventures in the US and abroad. This course provides the student with an overview of key leadership principles for creating strategy and managing teams in a new venture. It introduces leadership concepts critical to gaining true organizational commitment, and focuses on case studies relevant to common business issues. By exploring what entrepreneurial leaders actually do, and how they do it, the student will examine the principles of strategic planning, and how visionary leadership is required to develop an organization that is able to execute the strategy through measurable goals and objectives. Cross-listed with INTB 4028 & 6028. **Semester Hours:** 3 to 3

ENTP 6620 - New Venture Operations and Project Management

Introduces an operations model for developing internal and external operation plans for new ventures. Project management knowledge and skills are used to build operation plans. **Semester Hours:** 3 to 3 **When Offered:** FALL

ENTP 6642 - Exploring Social Entrepreneurship

Study the people and organizations addressing pressing social and environmental issues facing society today. Understand and develop innovative models providing solutions to these issues. Apply theory to real situations via site visits, case studies and guest speakers. **Semester Hours:** 3 to 3 **When Offered:** FALL

ENTP 6644 - Social Entrepreneurship in the Developing World

Solving Developing World's challenges using creative and entrepreneurial approaches. New generation of leaders are not just interested in the bottom line, but they are looking at the triple bottom line: People, Profit and the Planet. They are changing the **Semester Hours:** 3 to 3
When Offered: *SPRING*

ENTP 6800 - Special Topics in Entrepreneurship

A variety of topics in entrepreneurship are offered. Consult the current 'schedule Planner' for semester offerings. **Semester Hours:** 3 to 3

ENTP 6801 - Building Biotechnology

Fundamentals of Life Science Technology and Entrepreneurship. Session topics include introduction to bioinnovation and entrepreneurship, tech transfer, accounting and finance basics, financing, opportunity assessment, legal and regulatory environments, clinical trials, project management, ethics and societal issues and team building. Cross-listed with IDPT 6301. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ENTP 6802 - Regulatory Environment of Life Science Innovation

This course is designed to familiarize graduate level engineering, business, law and life science students with the fundamentals of the life science technology commercialization including drugs, devices, diagnostics, healthcare IT and platform applications. Cross-listed with IDPT 7302. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ENTP 6807 - Small Business Marketing and Personal Branding

Learn how to create successful marketing strategies in both Entrepreneurial and Intrapreneurial environments and personal branding. The course work will demonstrate the imperative link between marketing and personal branding through case studies, projects, guest speakers and reading materials. **Semester Hours:** 3 to 3 **When Offered:** *SUMMER*

ENTP 6808 - Practicum in Sustainable Business Research

This course is an online practicum research course in sustainable business with online lectures, resources and video focused on an original research paper/case study. Students should have taken a course or have knowledge/experience in sustainable business **Semester Hours:** 3 to 3
When Offered: *SUMMER*

ENTP 6822 - Legal and Ethical Issues of Entrepreneurship

This course addresses the legal issues most frequently encountered by entrepreneurs and others involved in start-ups and small, closely held or family businesses. The focus is on how to avoid legal problems and how best to cope when they arise. Topics include choice of business form, legal aspects of raising capital, taxation, intellectual property law, employment law, product liability, e-commerce and the problems of managing lawyers and litigation. Note: Cannot receive credit for both BUSN 6540 and this course. **Semester Hours:** 3 to 3

ENTP 6824 - Entrepreneurial Financial Management

Includes financial and legal aspects, financial reporting and cash flow analysis, financial planning, budgeting, working capital management, asset decisions, obtaining capital, business valuation, franchising, lease versus buy decisions, and financial asp **Semester Hours:** 3 to 3

ENTP 6826 - International Entrepreneurship

Provides the student with an overview of key trends and developments in international business. Familiarize the student with selected theories and concepts of international business and how it affects entrepreneurial functions, including finance, marketing, accounting, organization design and management. **Semester Hours:** 3 to 3

ENTP 6834 - Entrepreneurial Marketing

Designed to help students learn about best practices with recent lessons on Internet economy. Companies large and small face unique challenges successfully building a competitive advantage with limited marketing resources. Covers the analysis of marketing opportunities, identification of the targets, audience, and the development of a marketing strategy, brand positioning and an integrated marketing plan. Reviews product and service development processes. Provides a basis for establishing pricing and pricing plans. Assesses Internet economy. **Semester Hours:** 3 to 3

ENTP 6838 - Real Estate for the Entrepreneur

This course will address issues critical to the success of any new venture location including business site selection and negotiation of real estate leases and purchases. General principles of real estate development, financing and urban planning, applicable to entrepreneurs, will also be discussed. Zoning, affordable housing, ADA issues, property management, real estate investing, historic preservation and selected taxation issues are also covered. **Semester Hours:** 3 to 3

ENTP 6840 - Independent Study: ENTP

Semester Hours: 3 to 3

ENTP 6842 - New Concept Development

Understand business concepts, competitive offerings and potential customers' wants at their most fundamental level in this theory-driven course designed to help entrepreneurs assess the viability of new business concepts in potential markets. The course p **Semester Hours:** 3 to 3

ENTP 6846 - Marketing a New Business

The objective is to help entrepreneurs learn the latest techniques involved in taking a new business or service concept to market. It includes a theoretical analysis of how products diffuse, product life cycle issues, qualitative and quantitative research techniques (including exposure to an analytical software program), consumer behavior issues, strategic positioning given the nature of the product, the company and the external environment, promotion of the new concept and issues regarding the implementation of a marketing solution surrounding the new venture. **Semester Hours:** 3 to 3

ENTP 6848 - Leadership in New Ventures

Provides the student with an overview of key leadership principles for creating strategy and managing teams in a new venture. It introduces leadership concepts critical to gaining true organizational commitment and focuses on case studies relevant to common business issues. By exploring what entrepreneurial leaders actually do and how visionary leadership is required to develop an organization that is able to execute the strategy through measurable goals and objectives. **Semester Hours:** 3 to 3

ENTP 6854 - Design & Manage Entrepreneurial Organizations

This course is about building, running and growing an entrepreneurial organization. It is about creating an organization that will sustain high performance over a long period of time and become a premier institution in it's field. **Semester Hours:** 3 to 3

ENTP 6862 - Strategic Web Development

This course teaches students how to create a web presence that will support the purpose of the organization and help fuel the growth of the venture. The course covers the importance of website visibility to new business operations and the basics of designing and implementing web sites. It also covers how to utilize search engines, social networks, blogs and other online tools to support and promote your business. **Semester Hours:** 3 to 3

Environmental Sciences Courses (ENVS)

ENVS 1042 - Introduction to Environmental Sciences

This laboratory or survey course develops a basic understanding of ecological relationships and environmental systems. Issues such as the effects of human activities on earth's environment, extinction or diversity, greenhouse effect, hazardous or toxic wastes and human population growth are discussed. **Semester Hours:** 4 to 4

ENVS 1342 - Environment, Society and Sustainability

Overview of perspectives on environmental issues within the context of sustainable development and taking a systems approach. The focus is on social science approaches to explore the human footprint on the earth, environmentalism, scientific uncertainty, policy creation and social change. **Semester Hours:** 3 to 3

ENVS 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 3 to 3

ENVS 3082 - Energy and the Environment

For students of various backgrounds who wish to increase their understanding of the environmental and technical issues of supplying the energy demands of our society. Alternative energy sources and conservation are explored as solutions to promote a sustainable society. Prereq: One course in college science or mathematics. Cross-listed with PHYS 3082. **Semester Hours:** 3 to 3

ENVS 3500 - Topics in Environmental Sciences

Note: Topics may vary from one offering to the next. **Semester Hours:** 1 to 6

ENVS 4210 - Mining and the Environment

Mineral resources such as metals have played an important role in human civilization. However, the extraction, processing, and use of metals have left a legacy of damage to the environment and human health. These impacts and their mitigation are examined. Prereq: One course in college mathematics or science. **Semester Hours:** 3 to 3

ENVS 4500 - Topics In Environmental Sciences

Note: Topics may vary from one offering to the next. Prereq: Varies according to the topic. **Semester Hours:** 1 to 6

ENVS 4840 - Independent Study: ENVS

Semester Hours: 1 to 3

ENVS 4850 - Understanding and Communicating Field Methods

Interdisciplinary course that presents a balanced overview of common field methods and how to communicate them effectively to a general audience. Includes hands-on experience with various field methods (e.g., transects, survey design, historical assessment, GIS, etc.) and

communication strategies. Prereq: Introductory geography or environmental science course, and graduate or advanced upper-level standing, or instructor permission. Cross-listed with ENVS 5850 and GEOG 4850/5850. **Semester Hours:** 3 to 3

ENVS 4900 - Colloquium

Engages students and faculty in discussion of current and pertinent world topics, including specific readings, (guest) presentations, and creation of working research papers, among other items. Students and faculty may work in research groups to accomplish specific goals. Prereq: Advanced Standing (undergrad). Cross-listed with ENVS 5900, GEOG 4900 and 5900.

Semester Hours: 1 to 1

ENVS 4995 - Travel Study

Rigorous yet flexible fieldwork-based experience exploring geographical and environmental phenomena in diverse world locations. Course begins with intensive regional and methodological introductions, followed by on location field investigations in environmental analyses, cultural studies, GIS applications, tourism evaluation and/or hazards assessment. Prereq: GEOG 1202 and GEOG 1302, or permission of instructor. Cross-listed with ENVS 5995, GEOG 4995, and GEOG 5995. **Semester Hours:** 3 to 9

ENVS 4998 - Geography By Rail

Systematic and geographic exploration of region(s) mainly via train, focused on creating broad understanding of peoples, cultures, and landscapes. This course represents an intensive, field-based experience that may encompass both physical and cultural characteristics of place and space. Prereq: GEOG 1202 and 1302, or equivalent as determined by instructor. Cross-listed with ENVS 5998 and GEOG 4998/5998. **Semester Hours:** 1 to 12

ENVS 5010 - Landscape Geochemistry

A holistic approach to studying the role chemical elements play in synthesis/decomposition cycles, and the resultant environment from interaction of the lithosphere with the hydrosphere, atmosphere, biosphere, and pedosphere during geological, and ecological timeframes, together with anthropogenic activities. Prereq: Introductory college-level physical geography or environmental science course or permission of instructor. Cross-listed with GEOG 4010/GEOL 4010. **Semester Hours:** 3 to 3

ENVS 5020 - Earth Environments and Human Impacts

Basic concepts describing earth's biomes and physical environment are presented in a systems context. Global warming assessment, from both political and scientific perspectives, is then presented. Model visualization of these concepts to consider human impacts on Earth's biomes is discussed. Earth system viewpoint, having links of Earth's biomes to oceans and atmosphere, completes the course discussion. Cross-listed with GEOG 4020, GEOL 4020. **Semester Hours:** 3 to 3

ENVS 5030 - Environmental Geology

Applies geological information to interactions between people and the physical environment. Increasing awareness of its importance in our society means that this is an expanding field as

companies are required to address the environmental consequences of their actions. Prereq: Entry into MSES program, senior standing in sciences or geography, or permission of instructor. Cross-listed with GEOL 4030 and 5030. **Semester Hours:** 3 to 3

ENVS 5280 - Environmental Hydrology

Examination of hydrologic processes in relation to climate, soils, vegetation, land-use practices, and human interactions. Natural scientific perspectives emphasized; field and laboratory included. Prereq: GEOG 1202 and one of: 1) GEOG 3232; 2) GEOG 4240/GEOL 4240/GEOG 5240; 3) GEOG 4010/GEOL 4010/ENVS 5000. Cross-listed with GEOG 4280 and GEOL 4280. **Semester Hours:** 4 to 4

ENVS 5340 - Multicultural Science Education

This course examines literature in science education related to multicultural issues. Topics will be framed by an understanding of equity in diverse, urban classrooms and how it informs curriculum and instruction. Cross-listed with ELED/SECE 5340. **Semester Hours:** 3 to 3

ENVS 5403 - Unsaturated Zone Hydrology

Focuses on water and contaminant transport through the unsaturated zone, infiltration and drainage, and heat and gas transport. Students learn to design, perform field installation, and collect data in order to model and predict contaminant movement on/off site. Prereq: Chemistry, physics, calculus or permission of instructor. Cross-listed with GEOL 4402. **Semester Hours:** 3 to 3

ENVS 5410 - Aquatic Chemistry

Course objectives are to: (1) identify and understand chemical and physical principles and processes that control the composition of natural water, (2) prepare students to critically evaluate scientific literature and experimental design related to water quality and environmental remediation, and (3) examine the validity of environmental water data. Prereq: Graduate status and general chemistry and/or CHEM 4700. **Semester Hours:** 3 to 3

ENVS 5450 - Urban Food and Agriculture: Perspectives and Research

Provides an overview of research & practices in urban farming. Critically reviews emergent models of local food production/distribution. Compares new practices to traditional agribusiness. Assesses the prospects for solving sustainability problems within the modern agro-food system. Prerequisite GEOG 3401. Cross-list GEOG 4450. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ENVS 5460 - Sustainable Urban Agriculture Field Study I

Provides a field-based overview of urban farm planning & management. Topics: range/land conservation, native/invasive species, water distribution, animal husbandry, government interaction, local markets, community relations, conservation easements and issues pertaining to urban farming. Prerequisite ENVS 5450. Cross-list GEOG 4460. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ENVS 5470 - Sustainable Urban Agriculture Field Study II

Provides a field-based overview of current practices in local agricultural production. Emphasis will be placed on sustainable practices and their most efficient situation, Special consideration will be given to plausible solutions for food insecure communities both local and global.

Prerequisite ENVS 5450, 5460. Cross-list GEOG 4470. **Semester Hours:** 3 to 3 **When**

Offered: *SPRING*

ENVS 5500 - Topics in Environmental Sciences

Topics may vary from one offering to the next. **Semester Hours:** 1 to 6

ENVS 5513 - Geology of the Grand Canyon

Raft down the Grand Canyon and examine the geology of igneous, sedimentary, and metamorphic rocks from the Precambrian to the Holocene. Study marine and terrestrial fossils, migmatization and observe modern sedimentary processes. Cross-listed: GEOL 4513.

Semester Hours: 3 to 5

ENVS 5600 - Applied Statistics for the Natural Sciences

Surveys statistical techniques including: quick review of basic statistics, tests for normality and outliers, display of data; simple and multiple regression; ANOVA and its relation to regression. Emphasis on computer or stat-pak analysis and interpretation of statistical results. Prereq: College algebra and GEOG 3080, or consent of an instructor. Cross-listed with GEOG 4770, GEOL 4770, 5770. **Semester Hours:** 3 to 3

ENVS 5620 - Health Risk Communication

Acquaints students with contemporary theory, research, and practice in health risk communication. Cross-listed with COMM 5620/4620, HBSC 5620/4620 and PBHL 4620.

Semester Hours: 3 to 3

ENVS 5700 - Synthesis for Interdisciplinary Science

Synthesis is an approach in interdisciplinary research and education that links ideas, data and methods. This course develops synthesis skills through the lens of systems theory. It includes exercises for synthetic thinking, examination of integrative t **Semester Hours:** 3 to 3

ENVS 5730 - Air Quality Modeling and Analysis

Emphasizes the use of air dispersion modeling tools. Topics include: sources and effects of air pollution, use of the WWW, and analysis of modeling results. Note: For graduate students in environmental sciences or engineering, and for those working in the environmental field.

Prereq: Graduate standing. **Semester Hours:** 3 to 3

ENVS 5840 - Independent Study: ENVS

Semester Hours: 1 to 3

ENVS 5850 - Understanding and Communicating Field Methods

Interdisciplinary course that presents a balanced overview of common field methods and how to communicate them effectively to a general audience. Includes hands-on experience with various

field methods (e.g., transects, survey design, historical assessment, GIS, etc.) and communication strategies. Prereq: Introductory geography or environmental science course, and graduate or advanced upper-level standing, or instructor permission. Cross-listed with ENVS 4850 and GEOG 4850/5850. **Semester Hours:** 3 to 3

ENVS 5900 - Colloquium

Engages students and faculty in discussion of current and pertinent world topics, including specific readings, (guest) presentations, and creation of working research papers, among other items. Students and faculty may work in research groups to accomplish specific goals. Prereq: graduate student status. Cross-listed with ENVS 4900, GEOG 4900 and 5900. **Semester Hours:** 1 to 1

ENVS 5939 - Internship

Semester Hours: 1 to 6

ENVS 5995 - Travel Study

Rigorous yet flexible fieldwork-based experience exploring geographical and environmental phenomena in diverse world locations. Course begins with intensive regional and methodological introductions, followed by on-location field investigations in environmental analyses, cultural studies, GIS applications, tourism evaluation and/or hazards assessment. Prereq: GEOG 1202 and GEOG 1302, or permission of instructor. Cross-listed with ENVS 4995, GEOG 4995, and GEOG 5995. **Semester Hours:** 3 to 9

ENVS 5998 - Geography By Rail

Systematic and geographic exploration of region(s) mainly via train, focused on creating broad understanding of peoples, cultures, and landscapes. This course represents an intensive, field-based experience that may encompass both physical and cultural c **Semester Hours:** 1 to 12

ENVS 6000 - Environmental Sciences Seminar

Student and faculty presentations of UCDHSC research projects and other current environmental sciences topics. All environmental sciences students are encouraged to attend, but credit is given only to students who present seminars. Two semesters of this course are required to receive a M.S. in Environmental Science degree: these students must register for this seminar and give presentations the first semester they are in the M.S.E.S. program and the semester in which they defend their master's project. Prereq: Must be an M.S. in Environmental Science student. **Semester Hours:** 1 to 1

ENVS 6002 - Environmental Sciences Seminar

Introduces research and professional development in the environmental sciences, focusing on current issues and trends in the field, methods of developing research and project proposals, and defense of a proposal written during the semester. Students are introduced to the environmental sciences faculty and their research programs. Prereq: Must be an MS Environmental Science student or permission of instructor. **Semester Hours:** 3 to 3

ENVS 6200 - Risk Assessment

The process of determining the likelihood and extent of harm that may result from an activity or event. Topics covered are: hazard identification, dose-response evaluation, exposure assessment, and risk characterization. The subjects of risk management, risk perception, and risk communication are also discussed. Prereq: Graduate standing or permission of instructor. Cross-listed with CVEN 5494, HBSC 7340. **Semester Hours:** 3 to 3

ENVS 6210 - Human Health and Environmental Pollution

Examines the roles of technology and society in the etiology and control/prevention of adverse health outcomes associated with releases of toxic substances. Examples come from experience and the literature on occupational cancer and reproductive hazards, occupational and environmental regulation of hazardous wastes, air, and water pollution. Cross-listed with HBSC 7210. **Semester Hours:** 3 to 3

ENVS 6220 - Toxicology

Introduces the field of toxicology. Emphasizes the mechanisms by which chemicals produce toxic effects and the methods for assessing toxicity. Note: Designed for students in the environmental sciences and occupational health fields. Prereq: One year college chemistry and one year college biology. Cross-listed with HBSC 7360. **Semester Hours:** 3 to 3

ENVS 6230 - Environmental Epidemiology

Provides a basic understanding of the methods used to study the effects on human health of exposures to physical, chemical, or biological factors in the external environment. The course explains the use of epidemiologic methods through a problem solving approach to investigating environmental health case studies. Prereq: A basic statistics course and graduate standing or permission of instructor. Cross-listed with HBSC 7310. **Semester Hours:** 3 to 3

ENVS 6840 - Independent Study: ENVS

Semester Hours: 1 to 3

ENVS 6950 - Master's Thesis

Semester Hours: 1 to 6

ENVS 6960 - Master's Report

Semester Hours: 3 to 6

Educational Psychology Courses (EPSY)

EPSY 5000 - Psychological Foundations of Education

Surveys the results of psychological inquiry with emphasis on applications to educational practices. Major topics are motivation, behavior, learning, development, measurement, and characteristics of teachers and students. **Semester Hours:** 2 to 4

EPSY 5020 - Advanced Psychological Foundations of Education

Selected topics in educational psychology are examined; theoretical issues, current research and applications assume the primary emphasis. The course is intended primarily for students who have had prior professional experiences in teaching and psycho-edu **Semester Hours:** 3 to 3

EPSY 5050 - Children's Thinking

A review of the psychology of children's thinking emphasizing developmental changes in modes of thought. Topics include conceptual behavior, problem solving, intelligence, creativity, humor, play and others. **Semester Hours:** 3 to 3

EPSY 5100 - Advanced Child Growth and Development

Systematic study of the major theories of child growth and development. Focuses on current research regarding infants and children and the implication of such research for education. **Semester Hours:** 3 to 3

EPSY 5110 - Human Learning

A review of the research on human learning, including related topics such as information processing and motivation. Various theories of learning are examined in-depth, and their applications to teaching and practices in schools (and in other educational s **Semester Hours:** 3 to 3

EPSY 5120 - Behavior Analysis

A systematic survey of current theory in learning and behavior. The course emphasizes analysis of behavior and behavior change via reinforcement schedules. **Semester Hours:** 3 to 3

EPSY 5140 - Advanced Adolescent Growth and Development

Systematic study of the major theories of adolescent growth and development. Focuses on current research regarding adolescents and the implications of the research for education. **Semester Hours:** 3 to 3

EPSY 5160 - Behavior Disorders in Exceptional Children

An in-depth study of the psychological, social, and behavioral problems of exceptional learners. Topics include identification, etiology, educational assessment and strategies, non-educational intervention, parent involvement, programming and evaluation. **Semester Hours:** 3 to 3

EPSY 5170 - Behavior Analysis and Intervention

An application-oriented course that focuses on the development of social and affective skills for children and adolescents. Students gain actual experiences in the analysis and implementation of a variety of behavioral, ecological and psycho-educational i **Semester Hours:** 3 to 3

EPSY 5180 - Psychology of Gifted, Talented and Creative Children

Examines the nature of gifted, talented, and creative children from an educational psychology perspective. Topics addressed include historical antecedents, identification, characteristics of such children, research initiatives, measurement issues, relevan **Semester Hours:** 3 to 3

EPSY 5200 - Social Psychology of Learning

An analysis of social-psychological concepts, such as self-concept, attitude development, person perception, group processes and related phenomena. Applications to education and other settings are considered. **Semester Hours:** 3 to 3

EPSY 5220 - Adult Learning and Education

Surveys theories and principles of adult learning and adult education with emphasis on practical applications and design of programs of instruction for adult learners. **Semester Hours:** 3 to 3

EPSY 5240 - Cognition and Instruction

Explores recent developments in cognition and their implications for instructional practices. Includes theory and research in cognitive psychology and resultant educational practices. **Semester Hours:** 3 to 3

EPSY 5260 - Child Study and Observation

Involves extensive, systematic observation of young children. Recorded observations are analyzed in terms of child development theories, children's background, setting variables, and are then presented in written and elaborated form. **Semester Hours:** 3 to 3

EPSY 5500 - Student Teaching

Involves an extended period (usually one school year) of apprenticeship teaching under the daily supervision of mentor/master teachers. Over time, the student discusses teaching strategies with the mentor and a university supervisor--and takes on increasi **Semester Hours:** 2 to 4

EPSY 5800 - Workshop: School Applications of Educational Psychology

Research, development, and other scholarly activities in educational psychology are studied and reviewed. Applications are then made to school and other educational settings, with student practice and utilization of techniques emphasized. **Semester Hours:** 1 to 4

EPSY 5840 - Independent Study

Semester Hours: 1 to 4

EPSY 5920 - Readings in Educational Psychology

Semester Hours: 1 to 4

EPSY 6000 - Seminar in Educational Psychology

Examines classic research, major trends, and personalities in the field of educational psychology, broadly conceived. Also includes the history of the field, major divisions in educational psychology, professional organizations, and (as appropriate) the t **Semester Hours:** 3 to 3

EPSY 6120 - Family Dynamics

Review and analysis of issues related to families with exceptional or at-risk young children. Topics include coping skills, family involvement, parent-child interaction, and sources of support. Special attention is given to current research and its applic **Semester Hours:** 3 to 3

EPSY 6170 - Assessment of Infants Who are At-Risk

Provides classroom and field-based experience in the assessment of young children, birth to three years. Topics include selection, administration and interpretation of a variety of tests. Norm-referenced and criterion-referenced tests and observational me **Semester Hours:** 3 to 3

EPSY 6200 - Human Development Over the Life Span

An inquiry into the experience and meaning of human development over the full span of life. Both analytical and reflective modes of exploration are utilized to approach the study of personhood and the courses and themes of life. **Semester Hours:** 3 to 3

EPSY 6250 - Advanced Abnormal Psychology

The major objective of this course is to help the student develop a professional level of understanding of the major disorders commonly subsumed under the term "psychopathology" and related treatments. Classification of disorders in the DSM IV is utilized **Semester Hours:** 3 to 3

EPSY 6350 - Theories of Personality Development and Change

Advanced course in personality theory intended to assist students in becoming aware of their personal theory of personality and its implications for change. Students are introduced to an array of personality theories, taught to recognize the assumptions o **Semester Hours:** 3 to 3

EPSY 6500 - Student Teaching: Implementation and Reflection

Involves an extended period (usually one school year) of apprenticeship teaching under the daily supervision of mentor/master teachers. Over time, the student discusses teaching strategies with the mentor and a university supervisor--and takes on increasi **Semester Hours:** 2 to 4

EPSY 6600 - Human Motivation

Reviews the research on human motivation. Various theories of human motivation are examined in-depth, and their applications are considered for both teacher and learner in educational settings, primarily (and, in other settings, secondarily). Prereq: EPSY **Semester Hours:** 3 to 3

EPSY 6840 - Independent Study: EPSY

Semester Hours: 1 to 4

EPSY 6910 - Practicum in Educational Psychology

Field-based experiences in settings (schools, businesses, governmental agencies, special projects) that are linked closely to the student's professional objectives. Requires a minimum of 150, 225 or 300 clock hours under supervision (two-four credit hours) **Semester Hours: 2 to 4**

EPSY 6950 - Master's Thesis

Semester Hours: 4 to 4

EPSY 7601 - Special Topics: Laboratory in Educational Leadership and Innovation

Laboratories are organized by professors to engage students in on-going research programs. They provide opportunities for students to extend and apply knowledge and skills developed in course work. The laboratories enable students to complete portfolio re **Semester Hours: 1 to 6**

EPSY 7910 - Educational Psychology Practicum

Semester Hours: 2 to 4

Ethnic Studies Courses (ETST)

ETST 1111 - Freshman Seminar

Semester Hours: 3 to 3

ETST 2000 - Introduction to Ethnic Studies

Multi-disciplinary survey of contemporary and historical research analyses of the diverse social, economic, political, and cultural facets of African American, American Indian, Asian American, and Latino communities and cultures. **Semester Hours:** 3 to 3

ETST 2024 - Race and Ethnic Relations

Surveys race and ethnicity, facts and myths about great populations, and the social and cultural sources of bias and discrimination. **Semester Hours:** 3 to 3

ETST 2036 - American Indian Cultural Images

Analysis of images and perceptions of American Indians in American culture, as seen in politics, education, film, photography, advertising, art, literature and the media. **Semester Hours:** 3 to 3

ETST 2105 - African American Contemporary Social Issues

Exposes students to those areas of intellectual, social, cultural, economic, political, and educational concerns relevant to the African American experience. Principally an introductory survey of primary issues currently affecting the African American population. **Semester Hours:** 3 to 3

ETST 2115 - Genocide in the 21st Century: Darfur and Beyond

Introduces students not only to the first genocide of the twenty-first century, in which over 400,000 ethnic Sudanese have been forcibly wiped out and millions displaced, but also studies the root cause of genocide and some of the past genocides. **Semester Hours:** 3 to 3

ETST 2125 - The Bi-Racial Family

Covers specific issues related to the biracial/bicultural family in the U.S., including the socio-cultural factors involved. Parenting concerns and skills for professional application will be included. **Semester Hours:** 3 to 3

ETST 2145 - The Gullah in Novel and Film

Explores the history and culture of a distinct group of African Americans known as Gullah/Geechee, whose ancestors were brought to the U.S. as part of a specialized and often illegal slave trade that existed in coastal South Carolina and Georgia. **Semester Hours:** 3 to 3

ETST 2155 - African American History

Surveys the history of African Americans. Study interpretations, and analysis of major problems, issues, and trends affecting the African American population from pre-slavery to the present. **Semester Hours:** 3 to 3

ETST 2165 - Cultural Diversity Awareness in the Workplace

An analytical assessment aimed at understanding the impact and effectiveness of cultural diversity awareness. Participants focus on understanding their own cultural biases, recognizing the impact of cultural values, and gain an appreciation for the value of diversity in work organizations. **Semester Hours:** 3 to 3

ETST 2294 - Race and the Media

Virtually all Americans are susceptible to the blatant and subtle socializing and conditioning effects of the modern media (film, television, the internet). Explains the variety of cultural values transmitted through the media, with particular emphasis on racial issues. **Semester Hours:** 3 to 3

ETST 2400 - Issues in Chicano/a Education

Historical overview of segregation, landmark court cases and immigration policy in the education of Chicano/as in Colorado and nationally from 1920 to the present. The intersection of these issues in the education of undocumented students is also examined. Cross-listed with TCED 2400. **Semester Hours:** 3 to 3

ETST 2496 - American Indian Literature

Introduces American Indian literature and other expressive forms, with emphasis on their aesthetic, linguistic, psychological, and historical properties, as well as the contemporary social and cultural influences upon native authors and their material. **Semester Hours:** 3 to 3

ETST 2606 - The American Indian Experience

Surveys the relationships between Indian and non-Indian peoples, particularly in the context of the unique interaction between tribes and the federal government. Cross-listed with RLST 2680. **Semester Hours:** 3 to 3

ETST 2840 - Independent Study: ETST

Semester Hours: 1 to 3

ETST 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 1 to 3

ETST 3001 - Urban Sociology

The city and urban society are examined in terms of social structure, residential and institutional patternings, process of interaction, demographic processes, and patterns of growth and change. Prereq: SOCY 1001 or permission of instructor. Cross-listed with SOC 3001. **Semester Hours:** 3 to 3

ETST 3002 - Ethnicity, Health and Social Justice

Surveys core issues contributing to racial or ethnic minority differences in health status. Historical and contemporary U.S. health and social policy, including the areas of environmental

health, sexual and reproductive health, children and immigrants, are examined. Cross-listed with HBSC 3002 and PBHL 3002. **Semester Hours:** 3 to 3

ETST 3010 - Conference Participation

Semester Hours: 1 to 1

ETST 3108 - Chicano/a and Latino/a History

An historical analysis of person's descendant from Mexico and Latin America. Areas of focus include ethnohistorical backgrounds, current interrelations, and social movements in both rural and urban groups. Other topics include: cultural patterns, identity maintenance, social reforms and problems of national incorporation. **Semester Hours:** 3 to 3

ETST 3110 - Indigenous Studies

Examines how communities in diverse world regions preserve tradition, share knowledge, and respond to influences both within and outside of their immediate environments. **Semester Hours:** 3 to 3

ETST 3129 - Contemporary Latin American Literature

The best of contemporary Latin American novels. Examines how U.S. policies in Latin America affect literary creation. Note: Taught in English. **Semester Hours:** 3 to 3

ETST 3211 - Hip Hop Music & Culture

Covers the historical trajectory of hip hop music and culture from inception, aims to restructure stereotypes and offer a deeper perspective into how hip hop defines the identities of individuals as well as the consciousness of the masses within society. **Semester Hours:** 3 to 3

ETST 3216 - Federal Law and American Indians

Examines the legal and political history of the U.S. in relation to American Indian Nations. Focuses on specific laws and Supreme Court cases in federal Indian law, with analysis of U.S. policy. There will be some comparison with Indian policies of other countries. Cross-listed with PSCI 3214. **Semester Hours:** 3 to 3

ETST 3224 - U.S. Middle East Culture and Religion

Explores the history and development of the various major religions, cultures, and ethnic groups in the Middle East, their evolution and interaction in the U.S., and the historical impact and influence of the region, which continues to this day. Study of the region is timely and relevant due to U.S. involvement in various conflicts and peace efforts. **Semester Hours:** 3 to 3

ETST 3230 - African American Family

Exploration of the African American family social institution. Emphasis on historical roots and African influence is still enmeshed in the functioning of the family in modern society. Factors responsible for the ability of the family to meet the challenging society. **Semester Hours:** 3 to 3

ETST 3254 - Race and Ethnicity in the Inner City

This dynamic course combines aspects of urban studies and sociology. Contemporary cultural factors of the minority ghetto experience are investigated as elements in urban crisis. Emphasis is placed on possible solutions through government agencies and community organization.

Semester Hours: 3 to 3

ETST 3272 - Global Media

Introduction to leading issues in the study of transnational media. The course will focus on the global media environment in the early 21st century, diverse countries, a variety of media, and social issues. **Semester Hours:** 3 to 3

ETST 3274 - Power, Poverty, Culture

Studies the process that has rendered certain groups poor for generations. Studies African Americans, Whites, Chicanos/as and Latinos/as, and other ethnic groups that have lived in this society in a state of poverty. **Semester Hours:** 3 to 3

ETST 3297 - Social History of Asian Americans

Introductory-level course surveys the social history of Asian American groups from the mid-19th century to the present. Examines immigration patterns, the development of communities, social and economic problems, and anti-Asian movements and activities. Cross-listed with SOCY 3297.

Semester Hours: 3 to 3

ETST 3307 - Selected Topics: Asian Americans

Examines specific topics on Asian Americans to be selected by the instructor and the students. Detailed study of subjects relating to the Asian American experience and communities.

Semester Hours: 3 to 3

ETST 3350 - Colonial Latin America

Surveys the creation of colonial empires by Spain and Portugal, 1492-1808. Topics include Native American responses to European incursions, women in colonial society, and slavery in Latin America. Cross-listed with HIST 3350. **Semester Hours:** 3 to 3

ETST 3357 - Asian American Literature

Readings in this course examine the experiences of men and women in different generations; how each group attempts to maintain traditional values in a foreign land, to assimilate, and to forge a new identity. Includes short stories, poetry, essays, and novels by leading Asian American writers. **Semester Hours:** 3 to 3

ETST 3365 - Aztlan in the United States: Chicano History from 1821

Explores the impact of U.S. rule on the Southwest, paying particular attention to legal, economic, and social changes that created new political and cultural identities in the Southwest. Cross-listed with HIST 3365. **Semester Hours:** 3 to 3

ETST 3394 - Literature of Social Protest from an Ethnic Perspective

The literature of social protest of various ethnic groups is examined from a literary perspective and with reference to political and social theories. **Semester Hours:** 3 to 3

ETST 3396 - History of the American Indian

Indigenous nations in North America comprise hundreds of diverse cultures. This course examines U.S. Indian policy and how indigenous nations responded; how they creatively adapted, and resisted cultural change; and how they continue to persist culturally, socially, and politically. Cross-listed with HIST 3396. **Semester Hours:** 3 to 3

ETST 3408 - Social Psychology of Latinos/as

Exposes students to research on Latinos/as in the areas of intelligence and achievement, language and learning ability, attitudes, perception and motivation. **Semester Hours:** 3 to 3

ETST 3567 - Asian American Women

Examines processes of change in values, roles, and relations of Asian American women, using contemporary and historical readings that address problems such as generational differences, assimilation, and changing roles. **Semester Hours:** 3 to 3

ETST 3574 - Topics in Ethnic Studies

Topics vary from term to term, based upon interest and availability of instructors in specialized areas. **Semester Hours:** 3 to 3

ETST 3616 - Selected Topics: American Indians

Detailed study of subjects related to American Indian experience and communities. Note: Specific topics to be selected by the instructor and students. **Semester Hours:** 3 to 3

ETST 3697 - Contemporary Asian American Issues

Examines several contemporary Asian American issues, including the adaptation of new immigrants and refugees, economic and educational problems, ethnic identity, intermarriage, anti-Asian discrimination and other civil rights issues, and recent political activism. **Semester Hours:** 3 to 3

ETST 3704 - Culture, Racism and Alienation

The effects of racism on the personality of participants in racist cultures. **Semester Hours:** 3 to 3

ETST 3794 - Ethnic Diversity in American Literature

Surveys the cultural perspectives of various ethnic writers and their contributions to American literature. **Semester Hours:** 3 to 3

ETST 3838 - History of the Mexican American in Colorado

Mexican Americans in Colorado from the 1800's to the present. Topics include founding of Colorado towns, labor strikes, farm worker issues, land and water rights, the Chicano Movement and political power. **Semester Hours:** 3 to 3

ETST 3840 - Independent Study: ETST

Semester Hours: 1 to 3

ETST 3842 - Independent Study: ETST

Semester Hours: 1 to 3

ETST 3939 - Internship

Designed experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

ETST 4000 - Research Methods in Ethnic Studies

Emphasizes the acquisition of a variety of data or information collection and analytic skills, especially those applicable to historical and social inquiry in ethnic studies. **Semester Hours:** 3 to 3

ETST 4144 - Indigenous Political Systems

Surveys political theory and practice in indigenous societies in the Americas. Examines the impact of indigenous political thought on Euro-American politics, especially the U.S. Constitution, and explores the contemporary impact of indigenous people on current politics. Cross-listed with PSCI 4144. **Semester Hours:** 3 to 3

ETST 4146 - Indigenous Politics

Surveys the status of the world's native peoples and nations, and the role of law and politics in the future of indigenous peoples in the global arena. Examines questions of human rights, economic development, and international law and politics. Cross-listed with PSCI 4146, 5145. **Semester Hours:** 3 to 3

ETST 4156 - The Arab-Israeli Peace Process

Critical analysis of Arab and Israeli perspectives on the on-going peace negotiations in the Middle East. Historical background and religious-cultural aspects of current problems. Prereq: Upper division standing. Cross-listed with PSCI 4156. **Semester Hours:** 3 to 3

ETST 4220 - African-American Literature

Surveys African-American literature with special emphasis on post-Civil War writing. Cross-listed with ENGL 4220 and 5220. **Semester Hours:** 3 to 3

ETST 4411 - Modern Mexico

Designed to familiarize students with the critical issues of Mexican political, economic and social history. Traces the emergence of independence and the difficult consolidation of an independent nation state. Cross-listed with HIST 4411, 5411. **Semester Hours:** 3 to 3

ETST 4515 - The African American in Politics

Examines African American politics in the U.S.; the role of African American interest groups, structure and function of African American political organizations, goals and political styles of

African American politicians, trends, and the future of African American politics in the United States. **Semester Hours:** 3 to 3

ETST 4555 - International Women's Resistance

Examines local and international struggles of women to build peace and justice by resisting systems of inequality such as colonialism, racism, patriarchy, globalization, and religious intolerance. Cross-listed with PSCI 4555/5555 and WGST 4555/5555. **Semester Hours:** 3 to 3

ETST 4558 - Chicano and Latino Politics

Analysis of the social, cultural, and economic factors that affect political behavior of Latinos. Special attention is paid to the Mexican American cultural heritage and to relations between Mexican Americans and Anglo Americans. Cross-listed with PSCI 4554. **Semester Hours:** 3 to 3

ETST 4574 - Special Topics

Semester Hours: 3 to 3

ETST 4616 - Selected Topics: Chicanos/as and Latinos/as

Examines various contemporary issues in ethnic studies regarding Chicanos/as and Latinos/as. **Semester Hours:** 3 to 3

ETST 4726 - North American Indian Art

Surveys major tribal styles of the North American continent. **Semester Hours:** 3 to 3

ETST 4730 - Peoples and Cultures of Sub-Saharan Africa

Covers various types of societies and civilizations that have existed in sub-Saharan Africa. Explores foragers, pastoralists, agricultural societies, chiefdoms, kingdoms, and empires, as these emerged and interacted with each other. Details their ideas and social orders, including the following topics: race, ethnicity, kinship, politics, economics, religion, magic, witchcraft, sorcery, marriage, age, gender, stratification, art, literature and oral traditions. Also addresses the impact of colonialism, the rise of nations, changes in the post-colonial period, warfare, and the impact of globalism on Africa today. Prereq: Upper division standing. Cross-listed with ANTH 4730 and 5730. **Semester Hours:** 3 to 3

ETST 4768 - Chicano/Chicana Narrative and Social History

Provides a general, chronological, and thematic introduction to short stories and novels written by U.S. citizens of Mexican descent. Begins with early 20th century narratives by women, continues with the corrido and Post-World War II male writers, and ends with more recent publications by contemporary women writers. Social, historical, and political backgrounds are also emphasized, along with an analysis of the literary techniques and motifs. Cross-listed with ENGL 4768. **Semester Hours:** 3 to 3

ETST 4827 - Women and the Law

Examines the role of the courts in the development of public policy toward women; how the legal system affects the economic power, family roles, safety and political participation of women. Cross-listed with PSCI 4827 and WGST 4827. **Semester Hours:** 3 to 3

ETST 4840 - Independent Study: ETST

Semester Hours: 1 to 3

ETST 4960 - Senior Seminar in Ethnic Studies

Examines recent research in ethnic studies. Intended to be the capstone course for students minoring in ethnic studies. **Semester Hours:** 3 to 3

Film & Video Production Courses (FILM)

FILM 1060 - Camera/Multi-Media Production

In a lecture/lab setting, students will develop knowledge of equipment and skills in studio multi-camera production and the use of multi-media for live performances. Working together students will crew, produce and direct multi-camera studio and live productions. **Semester Hours:** 3 to 3

FILM 2050 - Film/Video Prod/Post II

Students create productions using three-chip digital cameras and advanced techniques. Preproduction through post-productivity working with actors, and maximizing production values are stressed. Students employ a range of cinematic techniques to tell stories, convey character state of mind, and communicate information and meaning. **Semester Hours:** 3 to 3

FILM 3100 - History of Film Production I

Surveys international film history from a production perspective from the origins of the medium to the development of sound. **Semester Hours:** 3 to 3

FILM 3150 - History of Film Production II

Surveys international film history from a production perspective, beginning with the introduction of sound to the present. **Semester Hours:** 3 to 3

FILM 3207 - Directing Workshop

Students work on scene studies rehearsed outside and presented in class. Emphasis is on capturing performance: working with actors and cameras to reveal character, deliver narrative and illuminate subtext. **Semester Hours:** 3 to 3

FILM 3264 - Advanced Digital Effects

Students will study software and create projects with advanced visual effects. With industry standard techniques in animation, applying compositing, image acquisition and motion graphics. Students will create a variety of projects by the end of the semester. **Semester Hours:** 3 to 3

FILM 3300 - Advanced Lighting for Film and Video

Students master film and video set lighting techniques for studio and locations. Focus is on art, technology, methodology, exposure, instruments, rigging and terminology. **Semester Hours:** 3 to 3

FILM 3400 - Intermediate Screenwriting

Emphasis is on creating character, conflict and structure through the use of theme, motifs, subplots, and story tone. Students complete the first act and a 25-page feature film treatment or the first draft of a feature-length script. **Semester Hours:** 3 to 3

FILM 3600 - Denver Film Festival

Students in this course will know how to contextualize films in terms of content and form. Through film viewing, written assignments, and critical analysis students learn to describe, classify and appreciate narrative, craft and artistic intent. **Semester Hours:** 3 to 3

FILM 4400 - Advanced Screenwriting

This course focuses on creating and refining a feature length dramatic script (90-120 pages). Students will view films, read essays and articles, and analyze styles. They will apply these techniques and use this information to improve their own work. **Semester Hours:** 3 to 3

FILM 4600 - Topics in Film

Specialized topics in film and video. **Semester Hours:** 1 to 3

FILM 4720 - Reel Prep

Students will work with a faculty member to prepare a sample of the student's creative work and projects in an "Industry standard" format used to secure employment. This work is referred to as an artists "Reel". **Semester Hours:** 1 to 1

FILM 4840 - Independent Study: FILM

Semester Hours: 1 to 3

FILM 5500 - Writing for Episodic Television

Explores the constructive and critical process of writing prime-time dramatic television. Each student is guided through a series of viewings, readings, and writing exercises culminating with the written completion of an episode from a current television series. **Semester Hours:** 3 to 3

FILM 5600 - Topics in Film

Specialized topics in film and video. **Semester Hours:** 1 to 3

FILM 5840 - Independent Study: FILM

Semester Hours: 1 to 3

Fine Arts Courses (FINE)

FINE 1001 - Introduction to Art

The course introduces visual analysis and critical examination of art from prehistory to modern times. Through reading, vocabulary development, group discussions, tests, and research projects, students will learn how to appreciate art and critically evaluate form, content, and context. **Semester Hours:** 3 to 3

FINE 1100 - Drawing I

This course explores the act of drawing as a process of visual thought as an initial step to artistic expression. Students will develop an understanding of the basic principles of drawing as a way of learning to see. **Semester Hours:** 3 to 3

FINE 1111 - Freshman Seminar

Semester Hours: 1 to 3

FINE 1120 - Digital Photography for Non-Majors

Students will learn fundamentals of digital photography through creative assignments that promote a broad understanding of the photographic medium. Topics include digital camera operation, sizing and resolution, principles of design, and interpreting photographic meaning. This course is designed for non-art majors. **Semester Hours:** 3 to 3

FINE 1140 - Topics in Photography

Semester Hours: 1 to 3

FINE 1150 - Introduction to Darkroom Photography

Students learn traditional, film-based photographic practice. Topics such as camera functions, film processing, black and white darkroom printing, color theory and alternative darkroom techniques are explored through demonstrations, critiques, readings and discussions of historical and contemporary photography. **Semester Hours:** 3 to 3

FINE 1400 - Two Dimensional Design

Focuses on the concepts and visual elements of all forms of two-dimensional art. Students gain an understanding of basic design principles as they analyze and visually articulate formal concerns in viewing contemporary and historical artworks as applied to studio problems. **Semester Hours:** 3 to 3

FINE 1435 - Intro to Electronic Art and Design

A lecture/art-studio course for high school students that provides an introduction to the computer and its artistic and commercial possibilities. Through projects, lectures, discussions and readings, students explore techniques of production including digital photographic manipulation, sound editing, and web animation. **Semester Hours:** 2 to 2

FINE 1500 - Three-Dimensional Design

Students explore the elements of art and the principles of design applied to three-dimensional design while developing an understanding of material properties, techniques, processes and tools. Creative practice is accompanied by written, theoretical and verbal critical thinking skills.

Semester Hours: 3 to 3

FINE 1810 - Digital Animation Foundations: Producing Animation

A lecture/lab course that explores the theory, practices and fundamentals of producing 3D animation. Students will explore the foundations of the animation process including the production pipeline, studio organizations, traditional animation techniques, foundational cinematography, storyboarding and character development. **Semester Hours:** 3 to 3

FINE 1820 - Digital Animation Foundations: Introduction to Digital 3D

A lecture/lab course that explores the foundations of creating digital 3D content. Primary focus is an introduction to current 3D software. Class lectures, demonstrations and hands-on application will expose the student to the expectations for commercial high-end 3D animation production. **Semester Hours:** 3 to 3

FINE 2010 - The Graphic Novel Workshop

This course introduces students to the visual language of the graphic novel through the creation of sequential imagery and page development. Students will delve into the pictorial methods found in both historical and contemporary comic books, Manga and alternative cartooning.

Semester Hours: 3 to 3

FINE 2015 - Intermedia Foundations

Students will develop techniques, strategies and methodologies for investigating contemporary ideas informed by theories of visual culture while implementing critical concepts into creative production centered in digital media. Course work includes creative projects, research assignments, critiques and presentations. **Semester Hours:** 3 to 3

FINE 2030 - Life Drawing

This course introduces the student to the human figure, addressing anatomy, movement and proportion. Discussion of historic and contemporary critical methods supplement studio practice. Exploring a variety of drawing media, students expand their drawing s **Semester Hours:** 3 to 3

FINE 2130 - Experiments in Color/Photography for Non-Majors

Explores both practical and innovative ways to manipulate color materials. Students gain technical mastery in understanding their cameras, using creative camera controls, color balancing film, and exposing color film while creating a portfolio of work that reveals experimental and innovative uses of color photographic materials. **Semester Hours:** 3 to 3

FINE 2140 - Topics in Photography

Semester Hours: 1 to 3

FINE 2155 - Introduction to Digital Photography

Students learn digital image manipulation, input and output strategies, and digital camera functions through assignments that emphasize conceptual development. Presentations, readings, projects and class discussions help students gain an understanding of the role of digital imaging in contemporary photography. **Semester Hours:** 3 to 3

FINE 2200 - Painting I

This course is an introduction to the language of painting. Students will learn to develop composition in layers, working from value to color and from direct observation to abstraction while exploring the range of visual possibilities that painting offers. **Semester Hours:** 3 to 3

FINE 2405 - Introduction to Digital Design

A project-based exploration of the design potentials of vector, raster and motion based digital media. Through project critiques, discussion and demonstration students will create projects that examine technology as an art medium and a design strategy. **Semester Hours:** 3 to 3

FINE 2415 - Typography Studio

A studio course that teaches principles of typography and organization that is the foundation of design and artistic practice. Through drawing, editing, and moving typographic forms, students will create projects that examine how typography is used to create meaning. **Semester Hours:** 3 to 3

FINE 2428 - Introduction to Scientific Media Design

Through lectures, writings, readings, and discussions students will be introduced to Scientific Media Design as a profession as well as the history and emerging directions in the field. **Semester Hours:** 3 to 3

FINE 2500 - Bronze Casting and Metal Sculpture

Students learn lost wax casting with ceramic shell investment and bonded sand. Modeling, foundry work, centrifugal casting and welding for cast metal is introduced, as is steel fabrication and mixed media. Individual vocabularies are explored and design skills required. **Semester Hours:** 3 to 3

FINE 2510 - Wood and Metal Sculpture

Wood, metal fabrication and introduction of the found object are premise for the exploration of individual visual vocabularies. Investigation and design are applied towards developing conceptual ideas while students advance skills in the metal and wood studios. **Semester Hours:** 3 to 3 **When Offered:** FALL

FINE 2600 - Art History Survey I

A lecture course studying Western art from cave paintings to medieval times, including major artists and periods. Through visual analysis, vocabulary acquisition, exams, and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the arts. **Semester Hours:** 3 to 3

FINE 2610 - Art History Survey II

A lecture course studying Western art from the Renaissance to the present, including major artists and periods. Through visual analysis, vocabulary acquisition, exams, and writing assignments, students will demonstrate knowledge of historical development **Semester Hours:** 3 to 3

FINE 2810 - Digital Animation Techniques: Surface Modeling

A lecture/lab course focused on the mastery of creating surface models for digital 3D content. Students will develop skills/knowledge about the processes and techniques for building complex 3D objects with an emphasis on artistic excellence through application of current 3D technologies. **Semester Hours:** 3 to 3

FINE 2820 - Digital Animation Techniques: Surface Properties

A lecture/lab course focused on mastery of creating surface textures/materials for digital 3D content. Students will develop skills/knowledge about the processes and techniques for creating realistic 3D textures/materials with an emphasis on artistic excellence through application of current 3D technologies. Note: Offered through Extended Studies (Continuing and Professional Education) due to separate tuition structure. Acceptance to the Digital Animation Center is competitive by interview/portfolio review with the Area Head for the program. **Semester Hours:** 3 to 3

FINE 2830 - Digital Animation Techniques: Lighting

A lecture/lab course focused on mastery of lighting the digital 3D environment. Students will develop skills/knowledge about the processes and techniques for creating realistic 3D lighting/lighting effects with an emphasis on artistic excellence through application of current 3D technologies. **Semester Hours:** 3 to 3

FINE 2850 - Digital Animation Techniques: 3D Character Creation

A lecture/lab course focused on mastery of skills for creating digital 3D characters. Students will develop skills/knowledge to shape, mold, transform/articulate, deform digital 3D shapes creating digital characters with an emphasis on artistic excellence through application of current 3D technologies. **Semester Hours:** 3 to 3

FINE 2995 - Travel Study

Created for students doing travel study in a foreign country. Students register through the Office of International Education. **Semester Hours:** 1 to 15

FINE 3001 - Digital Illustration Studio

This course focuses on digital mixed media and design thinking in the creation of illustrations within design constraints established by the client rather than the artist. Students learn methods for design thinking, critical assessment and refinement of illustration processes. **Semester Hours:** 3 to 3

FINE 3002 - Spatial Draw for Illustrators

Spatial Drawing for Illustrators focuses on the visualization of three-dimensional subjects in pictorial space. Theoretical and historical concepts of linear and optical perspective are examined; projects cover traditional and modernist approaches to creating the illusion of space.

Semester Hours: 3 to 3

FINE 3015 - Interdisciplinary Practices

By creating a variety of assigned projects, students will learn interdisciplinary methods relevant to contemporary visual culture. Ultimately they will understand these concepts and their importance within creative production through assigned readings, class discussions, critiques and presentations to their peers. **Semester Hours:** 3 to 3

FINE 3030 - The Media of Drawing

This course introduces students to the notion of drawing from life through an exploration of drawing methods/materials in the creation of artist's books- including learning various binding techniques and studying movement and juxtaposition as we draw in and from these books.

Semester Hours: 3 to 3

FINE 3050 - Figure Painting

This course is an exploration of representing the human form in pictorial space. Students will gain a knowledge of figural color, proportion, scale and space; and will understand the conceptual and visual weight carried by expressive gesture and figural form. **Semester Hours:** 3 to 3

FINE 3110 - Imaging and Identity

A lecture course that analyzes representations of cultural diversity within the arts. Through visual analysis, vocabulary acquisition, discussion, exams, and writing assignments, students will demonstrate knowledge of historical developments and an ability to pursue critical thinking when interpreting imagery. **Semester Hours:** 3 to 3

FINE 3120 - Visual Culture Studies

A lecture course about visual culture, theory, and literacy since the Industrial Revolution. Through visual analysis, vocabulary acquisition, discussion, exams, and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze imagery. **Semester Hours:** 3 to 3

FINE 3130 - Photography, Optics and Perspectives in Italy

In this study abroad seminar course, students develop an understanding of their work within the context of the history of art and photography, particularly the artistic and scientific breakthroughs of the Renaissance, by exposing them to strategies and theories exemplified by the remarkably diverse and historically significant artwork that is available in collections in Florence, Italy. **Semester Hours:** 3 to 3

FINE 3135 - Historic Photographic Processes in Italy

Investigates the relationship between critical concepts and alternative photographic processes in the unique cultural and artistic setting of Florence, Italy. Students create images using historic photographic methods such as salted paper, P.O.P., albumen, photo-polymer gravure and bromoil. **Semester Hours:** 3 to 3

FINE 3150 - Feminism and Art

A lecture course about feminist art, activism, theory, and artists. Through visual analysis, vocabulary acquisition, discussion, exams, and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze art. **Semester Hours:** 3 to 3

FINE 3160 - Color and Studio Lighting

Students explore traditional color photography, lighting techniques, concept development, and expressive uses of the medium. Topics include chromogenic printing, color theory, 4x5 technique and studio lighting. Students gain insight into the creative imp **Semester Hours:** 3 to 3

FINE 3161 - The Silver Fine Print

Students learn advanced black and white darkroom techniques while translating ideas into photographic form. Techniques include the zone system, split filter printing, toning, montage printing, and film/paper choices. Students gain insight into photograp **Semester Hours:** 3 to 3

FINE 3162 - The Digital Fine Print

Students learn the art of digital printing as it relates to photographic practice and theory. Assignments focus on conceptual development, advanced image manipulation, workflow, color management. Students gain insight into the role of digital imaging in **Semester Hours:** 3 to 3
When Offered: FALL

FINE 3171 - Concepts and Processes in Photography

Students develop skills in alternative photographic techniques. Processes covered include camera-less and pinhole photography, reticulation, non-silver printing, liquid emulsions, digital/traditional cross-manipulation. Students gain insights into the r **Semester Hours:** 3 to 3

FINE 3172 - Digital Bookmaking

Students create handmade artists books using digital technologies. Projects build skills in idea development, use of text and image, digital image manipulation, digital printing, scanning and bookbinding. Students learn strategies for creating visual na **Semester Hours:** 3 to 3

FINE 3175 - Creative Commercial Applications

Students learn how photographers apply creative, technical and conceptual skills to commercial photographic practice. Topics covered may include editorial strategies; studio or location photography; commercial business practices; advertising photography; **Semester Hours:** 3 to 3

FINE 3200 - Intermediate Painting and Drawing I

In this course students develop a body of work that expands on previous course work, to make the transition from assignment-based work to an independent body of work, and to prepare for advanced level study in painting and drawing. **Semester Hours:** 3 to 3

FINE 3210 - Intermediate Painting and Drawing II

In this course students continue to develop a body of work begun in Intermediate I, making the transition from assignment-based work to an independent body of work. Students are prepared in Intermediate II for advanced study in painting and drawing. **Semester Hours:** 3 to 3

FINE 3220 - Intermediate Drawing

In this course students develop an artistic voice through the creation of a series of work that stretch a chosen concept. Students will explore complex approaches to the picture plane and search out unique motifs, juxtapositions and frames of reference. **Semester Hours:** 3 to 3

FINE 3230 - Abstract Drawing

This course explores abstract drawing as a focus for creative expression through the concept, methods and techniques of abstraction. Students explore strategies in abstract composition, mark-making and expressive use of materials as they develop a complex visual vocabulary of form. **Semester Hours:** 3 to 3

FINE 3240 - Abstract Painting and Drawing

This course explores the methods of abstraction as applied to painting and drawing. Through developing a body of paintings and drawings, students will gain an understanding of complex formal structures in the development of their work. **Semester Hours:** 3 to 3

FINE 3250 - Sculpture: Contemporary Artists and Concepts

Provides the art student (sculpture majors and non- majors) with a focused opportunity to look at contemporary sculpture, installation and performance art and to examine the philosophical issues, processes and methods motivating practicing artists today. **Semester Hours:** 3 to 3

FINE 3260 - Portraiture

This is an advanced course in portraiture using both drawing and painting media. Working from observation and focusing on the anatomical structure, the artist will gain a greater command in portraying complex expressions of the human face. **Semester Hours:** 3 to 3

FINE 3300 - Painting, Drawing and the Printed Image

This course explores the role of technology in the history of painting/drawing alongside studio practice. Students produce works that explore personal symbolism through the combination of graphically printed and hand-produce marks while utilizing technology. **Semester Hours:** 3 to 3

FINE 3310 - Drawing and the Printed Image

The role of the printed image and technology in relation to drawing is explored. Student will produce works of art that combine photomechanical imagery with the hand painted mark by

utilizing digital technology and screen printing in combination with painting. **Semester Hours:** 3 to 3

FINE 3340 - Topics in Studio Art

Semester Hours: 1 to 3

FINE 3342 - Topics in Studio Art

Semester Hours: 1 to 3

FINE 3343 - Topics in Studio Art

Semester Hours: 1 to 3

FINE 3350 - Topics in Multimedia

Specialized topics are offered in new multimedia technologies, theories, processes and conceptual thinking. Course titles are unique and changing semester to semester. **Semester Hours:** 3 to 3

FINE 3400 - Introduction to Web Design and Digital Imaging

a studio course for non-design-majors that explores the design and creation of web sites for personal and professional use. Through critiques, discussion and research, students learn the basics of digital imaging and illustration as well as principles of user-interface design. Note: class may not be taken by Digital Design majors for credit toward degree. **Semester Hours:** 3 to 3

FINE 3405 - Introduction to Digital Video

A studio course for non-design-majors that focuses on the basics of storytelling using digital video. Through class projects, screenings, discussions and readings, students explore the concepts of montage and strategies to develop compelling video for art **Semester Hours:** 3 to 3

FINE 3414 - Motion Design I

A course devoted to understanding time based imagery that focuses on utilizing video and motion graphics as a creative communication tool. Students create projects that explore topics using video, animation, time and motion using a non-linear digital editing software. **Semester Hours:** 3 to 3

FINE 3415 - Design Studio I

In a design laboratory students learn to turn ideas into visual solutions through the application of design principles. Through lectures, writings, readings, discussion and critiques of projects assigned students will build visual literacy in relation to digital design. **Semester Hours:** 3 to 3

FINE 3424 - Interactive Media

A course exploring how interactive media can be used to convey a message and deliver information. Through critiques, discussion and research, students will learn principles of user

interface design, aesthetics and structure including their potential cultural impact. **Semester Hours:** 3 to 3

FINE 3434 - 3D Motion Design

A course devoted to 3D as a medium for creating works of art. Through demonstration, discussion, readings and project based explorations, students will learn to navigate and create in the 3D digital environment. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

FINE 3438 - Text, Image and Electronic Art

A workshop-laboratory devoted to examining advanced concepts concerning the role of image and text within time-based and interactive media in design/artistic practices. Through creative investigations, readings and discussion students consider the new and **Semester Hours:** 3 to 3

FINE 3444 - Interactive Media II

An intense course devoted to using interactivity as a medium for communicating ideas and information. Through creative investigations, readings and discussions, students will create projects that explore active viewer participation using vector/ raster animation, non-linear editing and viewer interaction. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

FINE 3448 - Scientific Media Design I

In a studio environment students will engage in the profession of scientific media design via tailored projects with local scientists and organizations. Through readings, discussions and critiques, students will examine best practices in visual communication **Semester Hours:** 3 to 3 **When Offered:** *FALL*

FINE 3450 - Digital Painting

Digital Painting is a studio designed for student exploration of artistic expression using digital tools for traditional painting and illustration techniques. **Semester Hours:** 3 to 3

FINE 3454 - Motion Design II

An intense course devoted to using time and motion as a medium for communicating ideas and information. Through creative investigations, readings and discussions students explore linkages between non-linear editing, animation and 3-dimensional animation a **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

FINE 3464 - Design Studio II

In a studio environment students will develop advanced projects using animation, interactivity and motion graphics to create innovative solutions to design problems. Students will learn to apply design theory to practice through discussion, critiques and **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

FINE 3474 - Narrative and Experience

A workshop-laboratory that focuses on narrative structure and its ability to create, control and manipulate viewer and user-experience. Through creative explorations, students will examine

issues of identity, reception and audience and develop approaches **Semester Hours:** 3 to 3
When Offered: *SPRING*

FINE 3500 - Modeling and Casting the Figure

Study of the human figure from life and imagination directs visual vocabulary towards expression three dimensionally. Mold making using rubber, alginate and plaster is introduced for casting in metal, resin, synthetics, plastic, paper and biodegradable materials. Drawing is included. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

FINE 3505 - Sculpture Topics

Developed to cover new technical and conceptual areas of sculpture. Some topics may expand traditional processes, others may introduce new processes and ideas. **Semester Hours:** 3 to 3

FINE 3510 - Installation Art

Students learn to modify the way a particular space is experienced through material intervention in everyday public or private spaces. Material use ranges from everyday and natural materials to new media such as video, sound, performance, computers and the Internet. **Semester Hours:** 3 to 3

FINE 3515 - Public Art

Students connect with professional/visiting artists installing public art works on campus for the Auraria Sculpture Park. Public relations, installation techniques, curatorial and administration skills are developed. Students learn to establish, maintain and promote the current sculpture collection on campus. **Semester Hours:** 3 to 3

FINE 3520 - Sculpture: Contemporary Artists and Concepts

Provides the art student (sculpture majors and non-majors) with a focused opportunity to look at contemporary sculpture, installation and performance art, and to examine the philosophical issues, processes, and methods, motivating practicing artists today. **Semester Hours:** 3 to 3

FINE 3525 - Environmental Sculpture

Students create environmental site-specific work to exist in a certain place. This involves temporary outdoor landscaping combined with permanently site sculptured elements. The format, the political, the historical, or the social context of the natural environment will be explored. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

FINE 3530 - Iron Casting

Students will learn traditional and innovative mold making techniques for casting iron. Working with lost wax, sand molds and space age materials students will cast ingots molds to final object. Furnace and Cupola design and fabrication techniques are researched. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

FINE 3535 - Sculpture Rendering

Students apply traditional and mixed media drawing skills, photography and digital reproduction to depict the sculptural object in two and three-dimensional space. Students learn

to construct small-scale models and develop sculpture proposals. Drawing as sculpture medium is explored. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

FINE 3600 - Art History Survey III: Non-Western Art

A lecture course on nonwestern art, including major cultures, periods, and artists. Through visual analysis, vocabulary acquisition, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze t **Semester Hours:** 3 to 3

FINE 3630 - History of Photography

Students examine the history of photography from its origins to the present. Emphasis is placed on photography as an artistic medium. Topics covered include important movements, photographers, and technical innovations, as well as photographer's broader role in visual culture. **Semester Hours:** 3 to 3

FINE 3631 - Photography: Theory and Criticism

Students investigate the historical texts of photographic criticism. Readings relate to photography as a fine art form, concentrating on 1970 to the present. Through discussions, readings and critical writing, students examine and appreciate the signific **Semester Hours:** 3 to 3

FINE 3635 - Photography Now

Students investigate trends in fine art photography from 1990 through the present. By examining current topics, styles, and techniques students gain insights into contemporary photographic practice and its relationship to the history and future of the me **Semester Hours:** 3 to 3

FINE 3640 - Topics in Art History

Semester Hours: 1 to 3

FINE 3644 - Topics in Art History

Semester Hours: 1 to 3

FINE 3810 - Digital Animation Studio: Set/Environment Design

A mid-program capstone studio course focuses on developing a project from preproduction through final product using a standard production pipeline model within a collaborative work environment. Students will design and create high-production value CG set/environment utilizing current 3D technologies. **Semester Hours:** 3 to 3

FINE 3820 - Digital Animation Techniques: Rigging and Animation

A lecture/lab course focused on mastery of skills for rigging and animating digital 3D objects/characters. Students explore the processes/techniques of animation rigging, its relationship to the skeletal/muscular system, articulated joints for manipulating character bones, muscle deformations, clothes and facial features. **Semester Hours:** 3 to 3

FINE 3830 - Digital Animation Technique: Character Animation

A lecture/lab course focused on mastery of skills for animating digital 3D objects/characters. Students explore the process/techniques of key frame/pose-to- pose animating considering character performance, thought, constraints and velocity with an emphasis on artistic excellence through applications of current 3D technologies. **Semester Hours:** 3 to 3

FINE 3845 - Digital Animation Discovery and Preproduction Seminar

A seminar course focused on the development and preproduction phases for the DAC senior thesis short. The principle focus of the course will be story development, preproduction activities and organizing the production team and production pipeline for the thesis short.

Semester Hours: 3 to 3

FINE 3850 - Digital Animation Techniques: Dynamic Simulation

A lecture/lab course exploring the theory/techniques of dynamic and particle simulations for 3D content. Students explore how to develop effects (smoke, fire, steam, explosions) and dynamic materials (cloth), with an emphasis on artistic excellence through application of current 3D technologies. **Semester Hours:** 3 to 3

FINE 3939 - Internship

Designed experiences involving application of specific, relevant concepts and skills in supervised employment situations. **Semester Hours:** 1 to 3

FINE 3995 - Travel Study

Created for students doing travel study in a foreign country. Students register through the Office of International Education. **Semester Hours:** 1 to 15

FINE 4000 - Advanced Drawing I

This course is the first advanced level study of drawing. Students will explore techniques and develop a rigorous body of drawings that express their concepts and theories through various processes needed in creating an independent body of work. **Semester Hours:** 3 to 3

FINE 4001 - Adv Illustration Studio I

Advanced Illustration Studio I is a conceptual illustration studio course that focuses students on assigned problems with constraints. Design-thinking methods and research are used to communicate a concept and discover the potentials of illustration media from plastic to digital. Prereq: FINE 3002 and 3260. **Semester Hours:** 3 to 3

FINE 4002 - Adv Illustration Studio II

In preparation for BFA Thesis, students refine their visual voice within a marketplace context. Students learn essential illustration marketing and business practices in order to develop a portfolio for a particular market or gallery setting. Prereq: FINE 4001 and 4020. **Semester Hours:** 3 to 3

FINE 4003 - Adv Illustration Studio III

Advanced Illustration Studio III is a capstone course and the culmination of the Illustration Program. Students focus on the development of individual style and the refinement of a portfolio made ready for submission. Prereq: FINE 4002. **Semester Hours:** 3 to 3

FINE 4010 - Advanced Drawing II

This course is the second advanced level study of drawing. Students will create a more rigorous and challenging body of work that emphasizes a stylistic development of critical ideas and methodologies that were developed in the first level of advanced drawing. **Semester Hours:** 3 to 3

FINE 4020 - Anatomy for the Artist

An intensive study of the human figure, focusing on its structure, movement and proportions. Skeletal and muscular systems are explored in depth using the classic texts of artistic anatomy to enhance students' drawings from observation. **Semester Hours:** 3 to 3

FINE 4050 - Design in a Global Workplace

Through intensive participatory workshops, study tours, and lectures this class examines the advantages of interdisciplinary community-based collaboration. This class also examines the complexities of cross discipline collaborations including multiple professional agendas, political and business establishments and the needs of the community. **Semester Hours:** 3 to 6 **When Offered:** SUMMER

FINE 4100 - Painting & Drawing Theory & Practice

This course focuses on a study of critical art theory from 1900 to now and its effects on art practice. Students read, research, discuss writing, and produce artwork while forming connections between published critical theory and their own creative ideas. Note: Students missing the first 2 classes of this course may be administratively dropped. Students will not be allowed to add course if they have missed the first 2 classes. **Semester Hours:** 3 to 3

FINE 4140 - Topics in Photography

Semester Hours: 1 to 3

FINE 4195 - Advanced Photography I

Students create an independent body of photographic work that integrates sophisticated concepts with technical mastery. Through critiques, presentations and discussions, students relate subject matter to historical and contemporary context. Students build **Semester Hours:** 3 to 3

FINE 4196 - Advanced Photography II

Students create an independent body of photographic work that integrates sophisticated concepts with technical mastery. Through critiques, presentations and discussions, students relate subject matter to historical and contemporary context. Students build expertise in the area of professional development in photography. **Semester Hours:** 3 to 3

FINE 4200 - Advanced Painting and Drawing I

This is the first level of advanced studies in painting/drawing where students create a body of work that expresses a more complex individual vision. Students learn to develop their artistic practice with self-directed processes in support of focused conc **Semester Hours:** 3 to 3

FINE 4210 - Advanced Painting/Drawing II

This is the second level of advanced studies in painting/drawing in which students expand and refine their body of creative work in preparation for the BFA Thesis Exhibition and advance their artistic practice by articulating their sources, processes and **Semester Hours:** 3 to 3

FINE 4340 - Topics in Studio Art

Semester Hours: 1 to 3

FINE 4350 - Topics in Digital Design

Specialized topics are offered in new design technologies, theories, processes and conceptual thinking. Course subjects are unique and changing semester to semester. **Semester Hours:** 1 to 3

FINE 4400 - Design Studio III

Set up as a collaborative studio, students learn to identify problems in the cultural and urban environment and design solutions that address those problems. Through discovery and research students will learn how design can be a catalyst for change. **Semester Hours:** 3 to 3 **When Offered:** FALL

FINE 4434 - Virtual Landscapes

In a studio environment students will explore place in relation to contemporary digital art practice. Through readings, lectures and production of projects assigned, students will create work that addresses the natural, urban and virtual environment. **Semester Hours:** 3 to 3

FINE 4448 - Scientific Media Design II

In a collaborative environment, students work with real-world clients to create innovative design solutions to scientific problems. Through advanced visualization techniques, discussions, and critiques, students examine thesis topics and learn how process is central to Scientific Media Design. **Semester Hours:** 3 to 3

FINE 4450 - Social Engagement by Design

Through lectures, discussions and conducting onsite research in international settings, students will become familiar with professional practitioners? Perspectives and experiences in the field of socially engaged design while interrogating current practices, policies, and expectations that inform community engagement and by Design. **Semester Hours:** 3 to 6 **When Offered:** SUMMER

FINE 4480 - The Practice of Design

Through lectures, studio visits and research, students will engage the profession and examine the role of the artist as a designer. Projects will focus on resumes, interview techniques, portfolio

and business practices to prepare students for entering the **Semester Hours: 3 to 3 When Offered: FALL**

FINE 4495 - Design Studio IV: Thesis

Through critique, research, and writing students will critically explore a thesis topic and develop professional quality visual solutions. Students will create work that expresses their personal artistic vision in relation to significant contemporary and historical artists and practice.

Semester Hours: 3 to 3 When Offered: SPRING

FINE 4500 - Kinetic Sculpture

Students explore movement and balance in sculptural work using pivot points and motors. Sound, projection, sensors and mechanics provide cause and effect scenarios in conjunction with knowledge, materials, and techniques acquired to date in the program. **Semester Hours: 3 to 3 When Offered: FALL**

FINE 4505 - Performance Art

Students use the human body as a vehicle and premise to examine social, political and personal concerns through events and situations around conceptual idea, time, space, and a relationship between performer and audience. Site, object and documentation are integral components.

Semester Hours: 3 to 3 When Offered: SPRING

FINE 4510 - Advanced Sculpture

Individual decision-making is stressed in developing a strong body of work. Competent technical skills and conceptual ideology are expanded to achieve complete visual experiences and development of conceptual ideas. **Semester Hours: 3 to 3**

FINE 4520 - Performance/Installation in Fine Art

Individual and collaborative projects, pieces, and events that develop one's attitudes, trust, and abilities to express through the awareness of space, environment, and the human condition and body. **Semester Hours: 3 to 3**

FINE 4522 - Interdisciplinary Art in Ireland

The interdisciplinary course introduces students to the methods and concepts of contemporary site-specific art as critical theory through lecture and critique and as practice in the rural/urban landscape and studio along Ireland's County Clare coastline in the Burren region. **Semester Hours: 6 to 6**

FINE 4524 - Topics in Art History

Semester Hours: 3 to 3

FINE 4525 - Museum Studies

A seminar about museums and art galleries as institutions for the preservation and exhibition of cultural materials. Through writing assignments, discussions, site visits, and analysis, students will demonstrate knowledge and critical thinking on the dis **Semester Hours: 3 to 3**

FINE 4600 - History of Modern Design:Industrial Revolution-Present

A lecture course involving the history of design from the Industrial Revolution to the present. The course will address the graphic design, typography, architecture, ?Decorative arts,? and new media from each period/major design movement in that time frame. **Semester Hours:** 3 to 3

FINE 4610 - Pre-Columbian Art

A lecture course on the art and architecture of Mesoamerica and the Andes before the Spanish conquest. Through visual analysis, vocabulary acquisition, discussion, exams, and writing assignments, students will demonstrate knowledge of historical developm **Semester Hours:** 3 to 3

FINE 4620 - American Art

A lecture course onthe art of the United States from colonial times to the present. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability **Semester Hours:** 3 to 3

FINE 4625 - Studio Creative Process

Provides students with an understanding of the artistic creative process which is learned through an examination of pre-studio, studio and post-studio practices. Prereq: Must have at least two art history survey courses. **Semester Hours:** 3 to 3

FINE 4630 - History of Latin American Art:1520-1820

A lecture course studying Latin American art of 1520-1820, including major artists and periods. Through visual analysis, vocabulary acquisition, exams, and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the arts. Cross-listed with FINE 5630. **Semester Hours:** 3 to 3

FINE 4632 - Media History and Aesthetics

This survey class will present the current and historic impact of media technology on the arts and professional design practice. Through lectures, research and discussion students will become familiar with issues specific to digital media and design. **Semester Hours:** 3 to 3

FINE 4650 - Nineteenth-Century Art

A lecture course on European movements from the French Revolution through Postimpressionism.Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an a **Semester Hours:** 3 to 3

FINE 4660 - Twentieth-Century Art

A lecture course on art and architecture from Postimpressionism to the year 2000. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to **Semester Hours:** 3 to 3

FINE 4670 - Greek and Roman Art

A lecture course on art and architecture from ancient Greece and Rome. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 4680 - Art of the Middle Ages

A lecture course on western European art and architecture from the fourth to the fourteenth centuries. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 4690 - Renaissance Art

A lecture course on Renaissance art of Italy and Northern Europe, including the principal artists and concepts. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. Cross-listed with FINE 5690. **Semester Hours:** 3 to 3

FINE 4700 - Italian Renaissance Art

A lecture course about developments in Italian Renaissance art and architecture. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 4705 - Northern Renaissance Art

A lecture course about developments in Northern Renaissance art and architecture. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 4710 - Baroque and Rococo Art

A lecture course on Italy, Spain, France, England, and the Netherlands during the seventeenth and eighteenth centuries. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 4712 - Applied Digital Media

This lab course provides students with the opportunity to execute practical applications in the use of digital 3D media for commercial and/or non-profit venue. **Semester Hours:** 1 to 3

FINE 4730 - Arts of Japan

A lecture course on selected themes and periods in Japanese art. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 4750 - Arts of China

A lecture course on selected themes and periods in the arts and architecture of China. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability **Semester Hours:** 3 to 3

FINE 4770 - Art of India and Southeast Asia

A lecture course on selected themes and periods in the arts of India and Southeast Asia. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability **Semester Hours:** 3 to 3

FINE 4790 - Methods in Art History

A seminar about the various research methodologies in the history of art. Through reading, discussion, research, writing assignments, and presentations, students will demonstrate knowledge of art historiography. **Semester Hours:** 3 to 3 **When Offered:** FALL

FINE 4810 - Digital Animation Studio: Animation Production I

First semester of a yearlong capstone focuses on production of the BFA thesis short. As a team, students assume key management/production roles to organize, produce and complete a high-production value animated short and student "demo reel" with real-world production pipeline. **Semester Hours:** 3 to 3

FINE 4820 - Digital Animation Studio: Animation Production Thesis

This third and final course in the three-semester capstone series focuses on the completion and marketing of the DAC short film, preparation for the BFA thesis defense, and development of the student's self-promotion demo reel and professional package (resume, website). **Semester Hours:** 3 to 3

FINE 4840 - Independent Study: FINE

Semester Hours: 1 to 3

FINE 4950 - Studio BFA Thesis

Studio: BFA Thesis involves the preparation, exhibition and critical faculty response to students' creative work. Course work focuses on contemporary trends in the arts, the commerce of the arts and the professional practices necessary to an artist's self-promotion. **Semester Hours:** 3 to 3

FINE 4951 - Bachelor of Art Thesis

A seminar that emphasizes creative and original research through the composition of a substantial paper on a topic in art history. Through discussion, presentations, and individual readings, students will demonstrate skills in research, writing, and criticism **Semester Hours:** 3 to 3

FINE 4990 - Contemporary Art: 1960 to Present

A lecture course about developments in art and architecture since 1960. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze them **Semester Hours:** 3 to 3

FINE 4995 - Travel Study

Created for students doing travel study in a foreign country. Students register through the Office of International Education. **Semester Hours:** 1 to 15

FINE 5000 - Graduate Drawing

Students are independently directed through an intensive process of critical investigation of drawing. Students will develop professional creative work through a rigorous exploration of process and content, while researching the role of contemporary drawing in artistic, cultural and social discourse. Note: Students missing the first 2 classes of this course may be administratively dropped. Students will not be allowed to add course if they have missed the first 2 classes.

Prereq: Graduate Level Standing. **Semester Hours:** 3 to 3

FINE 5020 - Graduate Anatomy for Artists

An intensive figure drawing course that focuses on structure, movement and proportions. Skeletal and muscular systems are studied using the classic texts of artistic anatomy. A research paper examining the figure in relation to architecture, perspective and pictorial narrative is also required. Note: Students missing the first 2 classes of this course may be administratively dropped. Students will not be allowed to add course if they have missed the first 2 classes.

Prereq: Graduate Level Standing. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

FINE 5190 - Graduate Photography

Graduate students create an independent body of photographic work that integrates sophisticated concepts with technical mastery. Through critiques, presentations and discussions, students relate subject matter to historical and contemporary context. Stu

Semester Hours: 3 to 3

FINE 5200 - Graduate Painting/Drawing I

An intensive painting course for students who want to further their development of an independent body of work beyond the advanced level. Students will produce mature work using self-directed means of rigorous artistic productivity based on previous bodie **Semester Hours:** 3 to 3

FINE 5210 - Graduate Painting/Drawing II

An intensive painting course for students who want to further their development of an independent body of work beyond the advanced level. Students will produce mature work using self-directed means of rigorous artistic productivity based on previous bodie **Semester Hours:** 3 to 3

FINE 5340 - Topics in Studio Art

Semester Hours: 1 to 3

FINE 5350 - Topics in Multimedia

Specialized topics are offered in new multimedia technologies, theories, processes and conceptual thinking. Course titles are unique and changing semester to semester. Prereq: Multimedia majors must have completed all required FINE 2000 level classes with a 2.75 GPA

or have passed a portfolio review. Other majors must have permission of instructor as course prerequisites may vary depending on course subject matter. Priority seating is given to multimedia majors. **Semester Hours:** 3 to 3

FINE 5448 - Scientific Media Design III

Set up as a collaborative studio course, students work with real-world clients to create innovative design solutions to scientific problems. Through advanced visualization techniques, discussions, and critiques, students will learn how process is central to Scientific Media Design. **Semester Hours:** 3 to 3

FINE 5450 - Social Engagement by Design

Through lectures, discussions and conducting onsite research in international settings, students will become familiar with professional practitioners? Perspectives and experiences in the field of socially engaged design while interrogating current practices, policies, and expectations that inform community engagement and by Design. **Semester Hours:** 3 to 6 **When Offered:** *SUMMER*

FINE 5500 - Graduate Sculpture I

A tutorial format which asks students to be self-directed. Conceptual ideology is expanded through research connected to projects. Portfolio documentation and presentation are required. **Semester Hours:** 3 to 3

FINE 5510 - Graduate Sculpture II

A self-directed format where students engage in mentored individualized projects as an extension of FINE 5500, Graduate Sculpture I. Conceptual ideology is expanded through research connected to projects. Portfolio documentation and presentation are required. **Semester Hours:** 3 to 3

FINE 5522 - Interdisciplinary Art in Ireland

The interdisciplinary course introduces students to the methods and concepts of contemporary site-specific art as critical theory through lecture and critique and as practice in the rural/urban landscape and studio along Ireland's County Clare coastline in the Burren region. **Semester Hours:** 6 to 6

FINE 5524 - Topics in Art History

Semester Hours: 3 to 3

FINE 5525 - Museum Studies

A seminar about museums and art galleries as institutions for the preservation and exhibition of cultural materials. Through writing assignments, discussions, site visits, and analysis, students will demonstrate knowledge and critical thinking on the display of art. **Semester Hours:** 3 to 3

FINE 5600 - History of Modern Design:Industrial Revolution-Present

A lecture course involving the history of design from the Industrial Revolution to the present. The course will address the graphic design, typography, architecture, ?Decorative arts,? and new media from each period/major design movement in that time frame. **Semester Hours:** 3 to 3

FINE 5610 - Pre-Columbian Art

A lecture course on the art and architecture of Mesoamerica and the Andes before the Spanish conquest. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 5620 - American Art

A lecture course on the art of the United States from colonial times to present. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 5625 - Studio Creative Process

Provides students with an understanding of the artistic creative process which is learned through an examination of pre-studio, studio and post-studio practices. Prereq: Must have at least two art history survey courses. **Semester Hours:** 3 to 3

FINE 5630 - History of Latin American Art:1520-1820

A lecture course studying Latin American art of 1520-1820, including major artists and periods. Through visual analysis, vocabulary acquisition, exams, and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the arts. Cross-listed with FINE 4630. **Semester Hours:** 3 to 3

FINE 5632 - History of Digital Media

Art historical survey and critical discourse of digital and electronic multimedia that covers the influences which have shaped this medium, its major contributors, the technological innovations and cultural impacts on society as an art form and commercial market form. Prereq: Junior standing or permission of instructor. **Semester Hours:** 3 to 3

FINE 5644 - Topics in Art History

Semester Hours: 1 to 3

FINE 5650 - Nineteenth-Century Art

A lecture course on European movements from the French Revolution through Postimpressionism. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 5660 - Twentieth-Century Art

A lecture course on art and architecture from Postimpressionism to the year 2000. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 5670 - Greek and Roman Art

A lecture course on art and architecture from ancient Greece and Rome. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 5680 - Art of the Middle Ages

A lecture course on western European art and architecture from the fourth to the fourteenth centuries. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 5690 - Renaissance Art

A lecture course on Renaissance art of Italy and Northern Europe, including the principal artists and concepts. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 5700 - Italian Renaissance Art

A lecture course about developments in Italian Renaissance art and architecture. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to a **Semester Hours:** 3 to 3

FINE 5705 - Northern Renaissance Art

A lecture course about developments in Northern Renaissance art and architecture. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to **Semester Hours:** 3 to 3

FINE 5710 - Baroque and Rococo Art

A lecture course on Italy, Spain, France, England, and the Netherlands during the seventeenth and eighteenth centuries. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 5730 - Arts of Japan

A lecture course on selected themes and periods in Japanese art. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 5750 - Arts of China

A lecture course on selected themes and periods in the arts and architecture of China. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 5770 - Art of India and Southeast Asia

A lecture course on selected themes and periods in the arts of India and Southeast Asia. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 5790 - Methods in Art History

A seminar about the various research methodologies in the history of art. Through reading, discussion, research, writing assignments, and presentations, students will demonstrate knowledge of art historiography. **Semester Hours:** 3 to 3 **When Offered:** FALL

FINE 5800 - Art Seminar

Required of Fine Arts majors in the B.F.A. and B.A. studio degree tracks majoring in Painting/Drawing, Photography or Sculpture. Course work covers research into professional practices, business practices, creative practice and career development. Note: Students missing the first 2 classes of this course may be administratively dropped. Students will not be allowed to add course if they have missed the first 2 classes. **Semester Hours:** 3 to 3

FINE 5840 - Independent Study: FINE

Semester Hours: 1 to 3

FINE 5939 - Internship

Semester Hours: 1 to 6

FINE 5990 - Contemporary Art: 1960-Present

A lecture course about developments in art and architecture since 1960. Through visual analysis, vocabulary acquisition, discussion, exams and writing assignments, students will demonstrate knowledge of historical developments and an ability to analyze the art. **Semester Hours:** 3 to 3

FINE 5995 - Travel Study

Created for students doing travel study in a foreign country. Students register through the Office of International Education. **Semester Hours:** 1 to 15

Film and Television Courses (FITV)

FITV 1000 - Introduction to Visual Culture

Provides fundamentals in academic theories surrounding visual culture. Topics include representation, spectatorship, mass media and popular culture, new media, and scientific images. Student participation is through discussion, creative projects, reading, and written response. Cross-listed with THTR 1000. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

FITV 1040 - Lighting, Grip, and Sound Introductory Workshop

The purpose of this course is to acquire basic competence with all film/video production equipment. The course acts as an introductory look at maintaining professionalism, efficiency, and safety in film/video sets for cast and crew. **Semester Hours:** 3 to 3

FITV 1050 - Production I Basics of Film and Television

Learn the fundamentals of video production including idea creation, videography, composing a professional image, cinematic lighting, sound track recording and construction, non-linear software. Individual and collaborative productions for film, video, and TV will be created.

Semester Hours: 3 to 3

FITV 1200 - Aesthetics of Television

The course will combine viewing of television programs with reading, writing and discussing television as students begin to understand intellectually, and learn to take an analytical view of this remarkable phenomenon. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

FITV 1550 - Scriptwriting 1 - Fiction

Critical exploration of dramatic writing for stage and screen. Understand how imagery, character, story, narrative structure, literary conventions, and more, impact compelling writing. Utilize effective writing and critiquing strategies focused on drafting and writing an original film/TV script. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

FITV 1600 - Writing Short Film:Non Fiction

Students study basic writing elements such as idea generation, character building, and scene setting while writing short non-fiction screenplays or teleplays for production. **Semester Hours:** 3 to 3

FITV 2040 - Introduction to Digital Effects

Learn the fundamentals of digital effects, animation, compression, and color correction as you incorporate graphic elements into your productions. Demonstrate the skills to utilize software applications used to create 2D, 3D animation, and motion graphics, green screen technology.

Semester Hours: 3 to 3

FITV 2050 - Production II Film and Television Techniques

Through a series of assigned film and TV projects students will be introduced to various genres of filmmaking, while building upon the skills of preproduction, production, and post-

production. Prereq: FITV 1050/TFVP 1050. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

FITV 2090 - Production Management for Film and Television

Students will learn the various aspects of planning, scheduling, budgeting, and managing both television and film productions. Students will develop skills for conceptualizing projects from script to screen. **Semester Hours:** 3 to 3

FITV 2220 - Acting for Film and Television

Provides the study, skill development and workshop experience for the actor in various media ? including film, television, commercial, and voice-over work. Students do physical exercises, vocal training, develop vocabulary, and scene exercises. Cross-l **Semester Hours:** 3 to 3 **When Offered:** *FALL*

FITV 2570 - Directing for Film and Television

Through a series of assigned video projects, students will practice the art of directing several film and television projects. Applying communication skills and directing techniques to the process. **Semester Hours:** 3 to 3

FITV 2670 - Cinematography for Directors

Students create film and TV projects that exhibit effective use of light, composition, depth of field, focal length. Student directors will learn how to collaborate with cinematographers and understand the science of photography, lenses, and lighting. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

FITV 3040 - TV Studio Production

Working in a multi-camera television studio environment, students in this course will experience each aspect of creating multiple live-to-tape television programs. Students will work in teams to create a television pilot as well as individual projects. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

FITV 3050 - Production III: Junior Project

Students will refine their knowledge of single-camera film and TV techniques in this hands-on, collaborative course. Students will conceptualize, develop, and shoot a short film or television project throughout the semester. Emphasis on storytelling, production design, production management, and cinematography. **Semester Hours:** 3 to 3

FITV 3060 - Editing for Film and Television

Students will apply post-production skills learned in previous courses to edit projects produced in Prod 3/Jr Project. This course will emphasize the completion of a professional broadcast-quality production with full audio and visual sweetening. Students will attain advanced editing skills through a longer format project. **Semester Hours:** 3 to 3

FITV 3090 - Producing Episodic Television

Students explore and develop skills in the collective practices necessary for the full production of an episodic television series. Students will actively participate in various aspects of episodic television production including preproduction, production, and post-production. **Semester Hours:** 3 to 3

FITV 3200 - History of Film to 1937

The development of cinema in the early 1880s brought with it a wealth of techniques still used today, from the close-up to crosscutting and montage. In this course students will view, analyze, research, and critique the beauty and sophistication of silent film from its beginnings through the late 1930s. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

FITV 3300 - History of Film from 1938

Take a journey through the many genres of film, from the introduction of sound to the present. Students will trace the development of various Hollywood genres and examine films that represent major developments in American cinema. In this course students will view, analyze, research, and critique films from 1938 to the present. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

FITV 3350 - Editing Aesthetics

A historical, theoretical, and practical hands-on approach to deconstructing and utilizing editing aesthetics. Students will consider the theory behind editing strategies that elicit an emotional or response from viewers, and put those theories to practice through demonstrative production exercises as well as analytical writing. **Semester Hours:** 3 to 3

FITV 3500 - Writing for Episodic Television

Explores the constructive and critical process of writing prime-time dramatic television and alternative broadcast platforms. Each student is guided through a series of viewings, readings, and writing exercises culminating with the written completion of television episodes for an original series. **Semester Hours:** 3 to 3

FITV 4000 - Senior Thesis Production

The first course of a two-part capstone experience in which students collaborate, plan, cast, budget, and produce a professional quality film/TV project or script. Projects/scripts will be completed in FITV 4010. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

FITV 4010 - Senior Thesis Post-Production

Second course of a two-part capstone experience in which students collaborate on post-production to complete the film/TV/script project. Emphasis will be on editing, color-correcting, audio sweetening, graphics, finishing a fine-cut of their project; students will seek distribution and exhibition. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

FITV 4050 - Shooting Action

In this production workshop, students will analyze films and storyboards, and shoot projects created for specific action and special effects outcomes. In addition, students will examine a

variety of techniques used to create action scenes in preparation f **Semester Hours:** 3 to 3
When Offered: *FALL*

FITV 4055 - Documentary Production

Students produce non-fiction film/TV productions in collaboration with non-profit organizations while exploring and experiencing industry practices. Prereq: FITV 2050/TFVP 2050. **Semester Hours:** 3 to 3

Finance Courses (FNCE)

FNCE 1000 - Intro to Risk Mgmt Insurance Careers

Provides a comprehensive overview of available Risk Management and Insurance careers. For all majors. Emphasis will be on interactions with industry professionals to provide hands-on knowledge and opportunities for in-depth discussion. **Semester Hours:** 1 to 1 **When Offered:** *FASPRSUM*

FNCE 2939 - Internship

Semester Hours: 1 to 3

FNCE 3000 - Principles of Finance

This course provides an introduction to financial markets and institutions, interest rates and the time value of money, principles of security valuation, concepts of risk and return, costs of capital and capital budgeting. Note: This course is required in the Business Core. A grade of 'C' or better must be earned to receive credit as a core course and to take subsequent courses for which it is a prerequisite. **Semester Hours:** 3 to 3

FNCE 3500 - Management of Business Capital

Students learn the basic principles of managing capital in the business firm. Topics include financial statement analysis, management of working capital, theory and management of capital structure and cost of capital. A grade of 'C' or better must be earned to receive credit for this course and to take subsequent courses for which it is a prerequisite. Prereq: MATH 1080, DSCI 2010, ACCT 2220, FNCE 3000 with a grade of 'C' or better. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

FNCE 3600 - Financial Markets and Institutions

Focuses on the supply and demand for loanable funds, the process of money creation, the structure of interest rates, and the role of banks and the Federal Reserve in the financial system. Special attention is devoted to the impact of monetary and fiscal policies on interest rates, the flow of funds and economic activity; and the operation of financial markets and institutions. A grade of 'C' or better must be earned in this course to receive credit for the area of emphasis and to take subsequent courses for which it is a prerequisite. Prereq: FNCE 3000. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

FNCE 3700 - Investment and Portfolio Management

In this course students learn about the different types of investment vehicles, including methods to estimate their value and analyze their risk. They will also be introduced to portfolio management, including the identification of objectives and constraints and the analysis and use of investment information. Topics include the functioning of security markets, asset allocation, security valuation, and portfolio analysis. A grade of 'C' or better must be earned to receive credit for the course, and to take subsequent courses for which it is a prerequisite. Note: FNCE 3700 and FNCE 3600 may be taken concurrently. Prereq: FNCE 3500 (and its prerequisites). **Semester Hours:** 3 to 3

FNCE 3809 - Introduction to Risk Management

This course introduces students to fundamentals of risk and risk management for businesses and individuals. Insurance is among the risk management tools examined. The insurance industry and carrier operations are also explored. Prereq: FNCE 3000. **Semester Hours:** 3 to 3

FNCE 3840 - Independent Study: FNCE

Semester Hours: 1 to 3

FNCE 3939 - Internship

Supervised experiences involving the application of concepts and skills in an employment situation. Prereq: Senior standing and approval of Business advisor. **Semester Hours:** 1 to 3

FNCE 3949 - Experiential Learning with Risk Management Industry

This course will connect students to risk management service providers, through the Risk Management and Insurance (RMI) Program. The students will either intern, or carry out independent projects with specific providers. The RMI program and faculty will supervise and monitor task and assignments, and coordinate with the providers to maximize the learning experience. Prereq: FNCE 3809. **Semester Hours:** 3 to 3

FNCE 4129 - Practical Enterprise Risk Mgmt

Skills in legal and factual analysis and the application of ethical theories are advanced and refined through integrative cases. Topics include insurance law, personal property law, intellectual property law, agency, business organizations, securities, employment law, and consumer law. Special focus is placed on the relationship between insurance and risk and the topics covered. Prereq: BLAW 3000. Cross-listed with FNCE 6409. **Semester Hours:** 3 to 3

FNCE 4370 - International Financial Management

Financial management in the international environment. Topics include international capital movements; international operations as they affect the financial functions; foreign and international institutions; and the foreign exchange process. Also considers foreign exchange theory and risk management, financial requirements, problems, sources, and policies of firms doing business internationally. A grade of 'C' or better must be earned to receive credit for the course and to take subsequent courses for which it is a prerequisite. Prereq: FNCE 3000. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

FNCE 4382 - Survey of Financial and Commodity Derivatives

Course provides an overview of financial&commodity derivatives & their markets.Covers futures, options, interest rate & currency swaps,convertible bonds,asset backed securities mortgage derivatives. Diagrams and simple mathematics are used to show how these instruments work&how they are used in corporate financing. This is a combined graduate/undergraduate course and needs superior mathematical and analytical skills. Prereq: FNCE 3500, FNCE 3700, may be tested into the course. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

FNCE 4500 - Corporate Financial Decisions

This is a required capstone course for the financial management emphasis. It uses the case method to develop the analytical and decision making skills of students. Students are required to apply theories and concepts learned in previous finance and accounting classes to real world scenarios. Topical coverage includes financial analysis, planning, control, working capital management, long-term investment and financing decisions and corporate valuation. A grade of 'C' or better must be earned to receive credit towards graduation. Prereq: FNCE 3000, FNCE 3500 and FNCE 3700 all with a grade of 'C' or better and senior standing. **Semester Hours:** 3 to 3

FNCE 4709 - Life and Health Insurance

The course is designed to provide the student with the basic understanding of life and health insurance concepts. The course will focus on a needs analysis for individual life insurance needs in preserving an estate or creating an estate. We also focus on the needs of the family and the preservation of the income stream for meeting short and long term needs and how we accomplish this via life insurance. We also will look at life insurance in terms of business planning using such concepts as key person life insurance, funding buy sell agreements, and related needs. On the health side, we will use a needs analysis approach to provide health coverage for the individual and family. We also explore the employee benefits arena and how businesses will focus on providing group medical coverage and related benefits in an ever changing health care environment with health care reform being phased in. We also will explore the internal workings of life and health insurance companies by reviewing the critical functions that include underwriting, information technology, agent/producer roles, claims, policy owner services, actuarial services, etc. Prereq: FNCE 3000. **Semester Hours:** 3 to 3

FNCE 4750 - Business Intelligence and Financial Modeling

In this course, the student learns to analyze and solve financial problems with spreadsheet models, apply Oracle Financial and Business Intelligence software that is widely used in corporate financial operations and model risk and uncertainty with Monte Carlo software. Prereq: ISMG 2050, FNCE 3000 and ISMG 3000 (or ACCT 3054) with a grade of 'C' or better. Cross-listed with ISMG 4750. **Semester Hours:** 3 to 3

FNCE 4809 - Property & Casualty Insurance

Introduces students to fundamentals of risk & risk management for businesses & uses of property, casualty, liability, directors and officers insurance, including cost and pricing issues. Types of insurance companies, agencies, and brokerages are also explored, along with insurance company financial mgmt & current trends in insurance industry. **Semester Hours:** 3 to 3

FNCE 4840 - Independent Study: FNCE

Semester Hours: 1 to 8

FNCE 4909 - Corporate Risk Management

The ultimate goal of corporate risk management is to maximize firm value by shaping a firm's risk profile. The risk management team identifies the type and level of risk exposure faced by their company. This helps the executive choose which risks to bear and which risks to transfer to

other entities, in three basic ways: modifying the firm's operations, adjusting its capital structure, and employing targeted financial instruments such as derivatives, insurance contracts, and structured financial products. Prereq: FNCE 3500, FNCE 3700, and FNCE 3809. Cross-listed with FNCE 6909. **Semester Hours:** 3 to 3

FNCE 4950 - Special Topics

Research methods and results, special topics and professional development in finance. Prerequisites vary according to topic and instructor requirements. **Semester Hours:** 3 to 3

FNCE 5939 - Internship

Supervised experiences involving the application of concepts and skills in an employment situation. Prereq: 21 semester hours and 3.5 GPA. **Semester Hours:** 1 to 3

FNCE 6129 - Practical Enterprise Risk Management

Involves identifying the risks and opportunities faced by a firm, assessing them, developing and implementing a plan to address them, and then monitoring progress. In this course, students will learn the basics of ERM while working with risk management professionals to develop and present components of such a plan. Prereq: BUSN 6640 (not strictly enforced). Cross-listed with FNCE 4129. **Semester Hours:** 3 to 3

FNCE 6290 - Quantitative Methods for Finance

This course provides a statistical foundation for subsequent courses in the Master of Science in Finance program. Major topics include descriptive statistics, probability theory, statistical estimation and inference and regression analysis. The emphasis is **Semester Hours:** 3 to 3

FNCE 6300 - Macroeconomics and Financial Markets

Covers the U.S. financial system in the global economy. Specific topics include financial institutions, money creation and monetary policy; the Federal Reserve System and its operation; the international financial system; interest rate determination, yield curves, and their relation to fiscal policy; the role of households and business in financial markets; stock markets; and money markets and instruments. (Required for the M.S. in Finance degree.) Prereq: BUSN 6620 (may be taken concurrently if student has previous economics coursework). **Semester Hours:** 3 to 3

FNCE 6310 - Financial Decisions and Policies

Emphasizes investment and financing decisions, and the analysis of the financial condition of the firm. Specific topics include capital budgeting, cost of capital, financing mix and strategy, firm valuation and management of working capital. Instruction is by the case method. Prereq: BUSN 6640. **Semester Hours:** 3 to 3

FNCE 6330 - Investment Management Analysis

In this course students will learn investment theories and how to apply them to portfolio management. Topics covered include asset allocation, security markets, the analysis and use of investment information, risk analysis and security valuation. This course is required for the M.S. in Finance degree. Prereq: BUSN 6620 and BUSN 6640. **Semester Hours:** 3 to 3

FNCE 6340 - Business Firm Valuation

In this class, students will learn two valuation techniques, fundamental valuation and relative valuation, to value a business. These techniques are useful in such situations as valuing firms for mergers and acquisitions and valuing stocks for investment purposes. Some of the topics included are valuation of start-up firms, valuation of privately held firms, and valuation of firms with negative earnings. Prereq: BUSN 6640. **Semester Hours:** 3 to 3

FNCE 6350 - Financial Innovations

Innovations include zero coupon bonds, inflation indexed bonds, structured notes, asset-backed securities, collateralized mortgage obligations, and interest rate swaps. The student learns about the markets and pricing of these securities, and how they affect interest rate risk. The course prepares the student for careers in corporate treasury management, structured financing, swaps trading, and mortgage backed securities design. Prereq: BUSN 6640. **Semester Hours:** 3 to 3

FNCE 6360 - Management of Financial Institutions

Overview of financial institutions and their risk management/financial performance management issues such as: management of operational, credit, liquidity, interest-rate, capital, off-balance sheet, and environmental risks; Uniform Bank Performance Report (UBPR) risk/performance analysis, hedging techniques and regulations/performance/risk. Prereq: BUSN 6640. **Semester Hours:** 3 to 3

FNCE 6365 - Banking Principles and Practices

Covers money and capital markets, commercial lending, asset and liability management, loan portfolio management and bank management. This class is only available to Colorado Graduate School of Banking students. Similar material is covered in FNCE 6300 and FNCE 6360. Therefore Business School students must enroll in those courses. Banking students cannot receive credit for FNCE 6300 or FNCE 6360. **Semester Hours:** 3 to 9

FNCE 6370 - International Financial Management

Addresses financial management in an international context that considers international capital movements and foreign exchange problems, and international operations as they affect financial functions. It reviews foreign and international institutions and the foreign exchange process and considers financial requirements, problems, sources and policies of firms doing business internationally. Prereq: BUSN 6640. Cross-listed with INTB 6372. **Semester Hours:** 3 to 3

FNCE 6372 - Business Forecasting

Uses modern forecasting methods applied to marketing, finance, accounting, human resources management and supply chain and production management decision-making. This course focuses on practical applications of forecasting techniques, choosing and comparing appropriate methods and applying the results to workplace situations. Note: Can only receive credit for either DSCI 6230 or FNCE 6372. Prereq: BUSN 6530 or FNCE 6290. Cross-listed with DSCI 6230. **Semester Hours:** 3 to 3

FNCE 6380 - Futures and Options

This covers both speculation and hedging using futures and options. The student learns about futures pricing, how futures are related to the underlying commodities and how to design hedges. Stock index futures and interest rates futures get particular attention. The course covers the theory and application of option pricing, focusing on the binomial and Black-Scholes models. Popular options trading strategies are discussed. This course is useful for those who wish to trade or become portfolio managers, as well as those who plan on corporate treasury management. Prereq: BUSN 6640 and FNCE 6382 or permission of the instructor. **Semester Hours:** 3 to 3

FNCE 6382 - Survey of Financial and Commodity Derivatives

This course provides an overview of financial and commodities derivatives and their respective markets. It covers options, futures, swaps and asset backed securities and their use in risk management. The course also discusses the economic issues in commodities markets, analyzes price and volume risk and shows how spot and future prices are related. This course is suitable for both MBA and MS (Finance) students, however, MS-Finance students who are more interested in the more rigorous knowledge necessary for trading derivatives are advised to take FNCE 6380. FNCE 6382 can be substituted by FNCE 6380 for those students who have taken a derivatives course prior to entering our program or with the approval of the FNCE 6380 instructor. Prereq: BUSN 6640. **Semester Hours:** 3 to 3

FNCE 6410 - Real Options and Decisions Under Uncertainty

This is an applied course in making investment decisions under uncertainty and flexibility. Traditional NPV analysis using tools such as Discounted Cash Flow (DCF) model assumes that once an investment decision has been made, managers have no control over the outcome and they remain passive throughout the life of the project. Most corporate projects, however, have a great deal of flexibility in terms of their execution. This course will help students develop skills to identify and analyze real options so that they may approach real world corporate investment decisions in a strategic manner. This course may be used to fulfill the requirement for an options course in the MS (Finance) program. Prereq: BUSN 6640. **Semester Hours:** 3 to 3

FNCE 6411 - International Corporate Governance

Discusses the structure and goals of the modern corporation, the primary governance mechanisms used to help companies achieve these goals, and how and why these roles, goals, and mechanisms vary across nations. The topics to be covered in the course include how share ownership, particularly by institutional shareholders, managerial compensation and board of director activities are being used to improve corporate governance systems. The class compares the Codes of Best Governance Practices from several countries as well as recent innovations in individual company governance rating systems. Prereq: BUSN 6640. Note: Students cannot receive credit for both FNCE 6411 and INTB 6411. Cross-listed with INTB 6411. **Semester Hours:** 3 to 3

FNCE 6420 - Mergers and Acquisitions

Examines the processes and decisions by which mergers, takeovers and other corporate restructuring occur, the transactions occur. Analyzes merger and acquisition decisions as part of

strategic decision making, and how firms are valued in mergers. Discusses the market for corporate control and the public policy implications of mergers and corporate governance. Prereq: BUSN 6640. **Semester Hours:** 3 to 3

FNCE 6450 - Short-Term Financial Management

This course is a survey of methods for managing short term assets and liabilities. Specific topics include the analysis of the firm's liquidity and cash flow, banking relationships; collection and disbursement systems; management of short term investment and financing; management of receivables, payables and inventory; and short term forecasting. This course is affiliated with the Association of Financial Professionals, allowing students earning at least a 'B' to sit for the Certified Treasury Professional (CTP-A) exam. Prereq: BUSN 6640. **Semester Hours:** 3 to 3

FNCE 6460 - Emerging Market Finance

This course aims to explore key emerging market finance issues from the perspectives of corporations, investors and markets. Emerging economies are deemed to be the engine of growth opportunities in the world economy. However, compared with developed markets, they typically have some unique features in their economic systems and financial markets, and thus different risk and return characteristics, leading to special considerations of capital budgeting, financing and investing in these economies. This course is to help develop a better understanding of financial markets, corporate finance and investments in emerging economies, with case studies on some major emerging markets (e.g., China, India). Prereq: BUSN 6620 and 6640. Cross-listed with INTB 6460. **Semester Hours:** 3 to 3

FNCE 6480 - Financial Modeling

Develops and implements financial models for purposes of financial planning and decision making. This course is intended to allow the student to increase her or his knowledge and skill in the development of various types of computer-based financial planning models. The students are exposed to the uses of a variety of computer software packages that can be used for modeling financial planning problems. Prereq: BUSN 6640, knowledge of computer and spreadsheet software. **Semester Hours:** 3 to 3

FNCE 6800 - Special Topics

Experimental course offered irregularly for the purpose of presenting new subject matter in finance. Prerequisites vary depending upon topics covered. (Consult the 'Schedule Planner' for semester offerings.) Prereq: BUSN 6640 **Semester Hours:** 3 to 3

FNCE 6809 - Principles of Risk and Insurance

Prepares students for advanced work in insurance and risk management. The course first covers the nature of risk and risk fundamentals, insurer operations, and insurance regulation. It then considers the principal techniques of managing risk exposures and the bases for decision making in management of business and personal risks. Prereq: BUSN 6640 (not strictly enforced). **Semester Hours:** 3 to 3 **When Offered:** FALL

FNCE 6840 - Independent Study: FNCE

Instructor approval required. Allowed only under special and unusual circumstances. Regularly scheduled courses cannot be taken as independent study. **Semester Hours:** 1 to 8

FNCE 6909 - Corporate Risk Management

The ultimate goal of corporate risk management is to maximize firm value by shaping a firm's risk profile. The risk management team identifies the type and level of risk exposure faced by their company. This helps the executive choose which risks to bear and which risks to transfer to other entities, in three basic ways: modifying the firm's operations, adjusting its capital structure, and employing targeted financial instruments such as derivatives, insurance contracts, and structured financial products. Prereq: FNCE 3500, FNCE 3700, and FNCE 3809. Cross-listed with FNCE 6909. **Semester Hours:** 3 to 3

FNCE 6995 - Travel Study

Semester Hours: 3 to 3

Foundations Courses (FNDS)

FNDS 5000 - Teaching as a Profession

General foundations of education course for pre-service candidates. Provides a broad overview of the historical, sociological, philosophical, and legal foundations of education. Includes an examination of contemporary issues in schooling, school organization **Semester Hours:** 3 to 3

FNDS 5050 - Critical Issues in American Education

Examines the social values and forces in American society which shape or influence the aims, philosophies, methods, content, and problems of the American educational enterprise.

Semester Hours: 3 to 3

FNDS 5100 - Education in Other Countries

Comparative examination of the political, historical, philosophical, sociological, economic, religious and other foundational aspects of education in several selected countries. **Semester Hours:** 3 to 3

FNDS 5410 - History and Philosophy of Modern Education

Examines Western intellectual heritage from the 16th to the 20th century; tracing corresponding development of educational theory and practice and its continuing impact on modern society. **Semester Hours:** 3 to 3

FNDS 5420 - History and Philosophy of Education: Twentieth Century America

Designed around selected themes from 20th century American social, political, and economic history. Students examine such issues as immigration, racism war, and social reform to identify the larger societal forces, ideas, and values that have shaped contemporary **Semester Hours:** 3 to 3

FNDS 5500 - Contemporary Philosophies of Education

Provides an examination of selected contemporary philosophies and their impact on educational thought and practice. Students are challenged to determine their own educational philosophy, while yet recognize and respect the variety of beliefs of educators. **Semester Hours:** 3 to 3

FNDS 5800 - Seminar: Foundations of Education

An in-depth exploration of topics, issues, and ideas largely generated by students through their other course experiences in foundations. Prereq: At least one graduate level course in foundations and permission of instructor. **Semester Hours:** 3 to 3

FNDS 5810 - Special Topics

Variable credit courses designed to deal with specific areas of content not covered in-depth in other program offerings; e.g., the social structure of the classroom. **Semester Hours:** 1 to 3

FNDS 5840 - Independent Study: FNDS

Semester Hours: 1 to 4

FNDS 5920 - Readings in Foundations of Education

Critical examination of very recent publications in the field of foundations: books and professional journal publications. Prereq: At least one graduate-level course in foundations and permission of instructor. **Semester Hours:** 3 to 3

FNDS 6350 - Seminar: Foundations of Education

Semester Hours: 3 to 3

FNDS 6600 - Special Topics: Laboratory in Educational Leadership and Innovation

Laboratories are organized by professors to engage students in on-going research programs. They provide opportunities for students to extend and apply knowledge and skills developed in course work. The laboratories enable students to complete portfolio re **Semester Hours:** 1 to 6

FNDS 6920 - Readings in Foundations of Education

Semester Hours: 3 to 3

FNDS 6950 - Master's Thesis

Semester Hours: 3 to 3

FNDS 7370 - Dissertation Seminar

Semester Hours: 1 to 1

FNDS 7420 - History and Philosophy of Education: Twentieth Century America

Designed around selected themes from 20th century American social, political and economic history. Students examine such issues as immigration, racism, war, and social reform to identify the larger societal forces, ideas, and values that have shaped conte **Semester Hours:** 3 to 3

FNDS 7500 - Contemporary Philosophies of Education

Provides an examination of selected contemporary philosophies and their impact on educational thought and practice. Students are challenged to determine their own educational philosophy, while yet recognize and respect the variety of beliefs of educators. **Semester Hours:** 3 to 3

FNDS 7600 - Special Topics: Laboratory in Educational Leadership and Innovation

Laboratories are organized by professors to engage students in on-going research programs. They provide opportunities for students to extend and apply knowledge and skills developed in course work. The laboratories enable students to complete portfolio re **Semester Hours:** 1 to 6

FNDS 7840 - Independent Study: FNDS

Semester Hours: 1 to 4

FNDS 7930 - Teaching Internship in Foundations of Education

Semester Hours: 3 to 3

FNDS 8990 - Doctor of Philosophy Dissertation

Semester Hours: 3 to 10

FNDS 8991 - Doctor of Education Dissertation

Semester Hours: 3 to 10

French Coures (FREN)

FREN 1000 - Introduction to Cultures of the French- Speaking World

Introduces students to the many cultures of the French-speaking world. Taught in English for accessibility to students from different colleges at the University. The countries studied are: France, its overseas departments (Guadeloupe and Martinique) and territories (Tahiti); Quebec; Senegal; and other African countries. **Semester Hours:** 3 to 3

FREN 1010 - Beginning French I

Basic grammatical and syntactic structures are introduced, together with an elementary vocabulary and cultural items that allow the student to carry on simple conversations in French. Note: Students may not enroll in any lower division (1000/2000) language skills course in which their level of proficiency exceeds that of the course. Students placing into a course through any means other than following the regular sequence must consult with an appropriate faculty member of the Dept. of Modern Languages prior to enrollment. No previous study of French is required. **Semester Hours:** 5 to 5

FREN 1020 - Beginning French II

(Continuation of FREN 1010.) More complex grammatical structures are introduced, and literary and cultural readings are added. Elementary vocabulary and cultural awareness are expanded to enable the student to carry on more complicated conversations. Note: Students may not enroll in any lower division (1000/2000) language skills course in which their level of proficiency exceeds that of the course. Students placing into a course through any means other than following the regular sequence must consult with an appropriate faculty member of the Dept. of Modern Languages prior to enrollment. Prereq: FREN 1010 with a grade of 'C' (2.0) or higher. **Semester Hours:** 5 to 5

FREN 1111 - Freshman Seminar

Semester Hours: 1 to 3

FREN 2110 - Intermediate French I: Grammar Review, Reading and Composition

Designed to further develop all the language skills, with particular emphasis on reading and writing, and to further continue students' introduction to French culture. Students review grammar and vocabulary, read and discuss *Le Petit Prince*, and express their reactions to the text both orally and in writing. Note: Students may not enroll in any lower division (1000/2000) language skills course in which their level of proficiency exceeds that of the course. Students placing into a course through any means other than following the regular sequence must consult with an appropriate faculty member of the Dept. of Modern Languages prior to enrollment. Prereq: FREN 1020 with a grade of 'C' (2.0) or higher. **Semester Hours:** 3 to 3

FREN 2120 - Intermediate French II: Grammar Review and Conversation

Designed to further develop all the language skills, with particular emphasis on speaking, and to continue students' introduction to French culture. Students review grammar and vocabulary, read and discuss short cultural texts and participate in oral activities intended to increase

communication skills. Note: Students may not enroll in any lower division (1000/2000) language skills course in which their level of proficiency exceeds that of the course. Students placing into a course through any means other than following the regular sequence must consult with an appropriate faculty member of the Dept. of Modern Languages prior to enrollment. Prereq: FREN 2110 with a grade of 'C' (2.0) or higher. **Semester Hours:** 3 to 3

FREN 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 1 to 3

FREN 2995 - Travel Study

An intensive language and culture course, taught in Amiens, France. Students are enrolled in either beginning, intermediate, or advanced courses at the University of Picardie/Jules Verne. Afternoon sessions and weekends include excursions to Paris, the northern coasts, lectures, movies, business tours, discussions, and field trips. Register through the Office of International Education. Prereq: FREN 2110. **Semester Hours:** 1 to 6

FREN 3010 - French Phonetics and Pronunciation

Helps students acquire speech habits through knowledge of phonetics. Topics include the function of the speech organs, accurate production and recognition of sound, and the use of phonetic symbols. Note: Students with native or near-native level proficiency in French must consult with the French advisor before enrolling in this course. These students may, in some cases, take this course. The instructor of the course and/or the French advisor reserve the right to determine the level of linguistic proficiency of the student and his or her admission to the class by means of an oral interview and/or placement exam scores. Prereq: FREN 2120 or equivalent. **Semester Hours:** 3 to 3

FREN 3020 - Oral Practice

Conversation course, using dialogues, debates, small-group discussion, and short oral presentations to improve fluency in spoken French and to build vocabulary. Discussions center around current issues. Note: Students with native or near-native-level proficiency will not be allowed to take FREN 3020. The instructor of the course and/or the French advisor reserve the right to determine the level of linguistic proficiency of the student and his or her admission to the class by means of an oral interview and/or placement exam scores. Prereq: FREN 2120 or equivalent. **Semester Hours:** 3 to 3

FREN 3050 - Advanced Grammar and Composition

Rigorous review of grammar (including past and future tenses, conditional mood and nominal phrase), along with development of writing skills through analysis and discussion of selections from French writers. Through questions and written exercises, students familiarize themselves with vocabulary, spelling, syntax and grammar. Note: May be taken before or after FREN 3060. Students with native or near-native level proficiency in French must consult with the French advisor before enrolling in this course. These students may, in some cases, take this course. The instructor of the course and/or the French advisor reserve the right to determine the level of linguistic proficiency of the student and his or her admission to the class by means of an oral

interview and/or placement exam scores. Prereq: FREN 2120 or equivalent. **Semester Hours:** 3 to 3

FREN 3060 - Advanced French Language Skills

Rigorous review of grammar (including subjunctive, interrogative, verbal phrase and passive voice), along with development of writing skills through analysis and discussion of selections from French writers. Through questions and written exercises, students familiarize themselves with vocabulary, spelling, and grammar. Note: May be taken before or after FREN 3050. Students with native or near-native level proficiency in French must consult with the French advisor before enrolling in this course. These students may, in some cases, take this course. The instructor of the course and/or the French advisor reserve the right to determine the level of linguistic proficiency of the student and his or her admission to the class by means of an oral interview and/or placement exam scores. Prereq: FREN 2120 or equivalent. **Semester Hours:** 3 to 3

FREN 3112 - Survey of French Literature I

Introduces survey of the major literary trends and prominent writers of French literature from 842 A.D. to the end of the 18th century. Note: May be taken before or after FREN 3122. Prereq: FREN 2120 or equivalent. **Semester Hours:** 3 to 3

FREN 3120 - French Cultural Identities: Myths and Realities

The self-assured demeanor of the average French man or woman both attracts and confounds. In fact, a French person's behavior -- or that of the French government -- can seem impossible to decode if not understood within an authentically French context. This course examines that context and explores how the French view everyday life. Includes analysis of classic French films. Prereq: FREN 2120 or equivalent. **Semester Hours:** 3 to 3

FREN 3122 - Survey of French Literature II

Introduces survey of the major literary trends (romanticism, realism and existentialism) and writers of the 19th and 20th centuries. Students become acquainted with prominent writers of the period such as Beauvoir, Chateaubriand, Hugo, Balzac, Flaubert, Proust, Camus and Sartre. Note: May be taken before or after FREN 3112. Prereq: FREN 2120 or permission of instructor. **Semester Hours:** 3 to 3

FREN 3130 - Current Topics of the French-Speaking World

Combines discussion and writing on political, economic, and social conditions in contemporary France and the Francophone world. Articles from current French newspapers, news magazines, television broadcasts, and the World Wide Web are analyzed for a better understanding of modern French culture. Prereq: FREN 2120 or equivalent. **Semester Hours:** 3 to 3

FREN 3140 - Contemporary Francophone Cultures

Through the reading of short stories and cultural texts, engages students in the exploration of cultures of the Francophone world. Addresses political, economic and geographic status of each region as well as societal identity, immigration, the individual and cultural identity. Prereq: FREN 2120 or equivalent. **Semester Hours:** 3 to 3

FREN 3200 - The Francophone World in the Post-Colonial Era

Focuses on the many Francophone regions of the world, including (but not limited to) France, North and West Africa, Southeast Asia, and the Caribbean, and surveys a wide span of subject matter as it pertains to the post-colonial situations in these regions. Taught in English. Prereq: Sophomore standing. **Semester Hours:** 3 to 3

FREN 3840 - Independent Study: FREN

Semester Hours: 1 to 3

FREN 3939 - Internship

Semester Hours: 1 to 3

FREN 3970 - Special Topics

Varying topics in French and Francophone language, literature and culture appropriate to the 3000 level, not otherwise covered by regular courses. Prereq: FREN 2120 or equivalent. Note: May be taken more than once, provided that the topic is different each time. **Semester Hours:** 3 to 3

FREN 3995 - Travel Study

An intensive language and culture course, taught in Amiens, France. Students are enrolled in either beginning, intermediate, or advanced courses at the University of Picardie/Jules Verne. Afternoon sessions and weekends include excursions to Paris, the northern coasts, lectures, movies, business tours, discussions, and field trips. (Register through the Office of International Education.) Prereq: FREN 2120 or equivalent. **Semester Hours:** 3 to 6

FREN 4010 - Advanced Composition: Stylistics

Focuses on improvement of writing skills and development of the student's ability to compose logically and convincingly. The writing styles to be studied include: narration, description, portrait, persuasive essay and report. Prereq: FREN 3050 or 3060 plus one other 3000-level French course or permission of instructor. **Semester Hours:** 3 to 3

FREN 4050 - Advanced French for Business

Concentrates on the technical language necessary to meet the economic and commercial needs of the modern world. Prepares students for the practical certificate of business and economic French of the Paris Chamber of Commerce. Note: Students with native or near-native level proficiency in French must consult with the French advisor before enrolling in this course. These students may, in some cases, take this course. The instructor of the course and/or the French advisor reserve the right to determine the level of linguistic proficiency of the student and his or her admission to the class by means of an oral interview and/or placement exam scores. Prereq: FREN 3050 or 3060 plus one other 3000-level French course or permission of instructor. **Semester Hours:** 3 to 3

FREN 4082 - Introduction to Translation

Introduces the methodology and practice of written translation from English to French/French to English. Students will learn techniques on how to avoid word by word translation, faulty

sentence structure and anglicisms by focusing on grammar, syntax and vocabulary. Note: Students must demonstrate third-year competence and advanced writing skills in English. Students with native or near-native level proficiency in French must consult with the French advisor before enrolling in this course. These students may, in some cases, take this course. The instructor of the course and/or the French advisor reserve the right to determine the level of linguistic proficiency of the student and his or her admission to the class by means of an oral interview and/or placement exam scores. Prereq: FREN 3050 or 3060 and one other upper-division French class. Cross-listed with FREN 5082. **Semester Hours:** 3 to 3

FREN 4200 - French Civilization Through the Nineteenth Century

Development of French culture and civilization from a historical perspective, beginning with the origins of France and continuing through the 19th century. Includes historical background, sciences and techniques, daily life, the arts, literature and philosophy, and religion. Note: May be taken before or after FREN 4210. Prereq: Two 3000-level courses or permission of instructor. **Semester Hours:** 3 to 3

FREN 4210 - French Civilization - Twentieth and Twenty-First Centuries

(Continuation of FREN 4200) The development of French culture and civilization in a historical perspective from the beginning of the 20th century to the present. Includes historical background, sciences and techniques, daily life, the arts, literature and philosophy, and religion. Note: May be taken before or after FREN 4200. Prereq: Two 3000-level courses or permission of instructor. **Semester Hours:** 3 to 3

FREN 4310 - Seventeenth Century Literature

An in-depth study of the century considered to be the pinnacle of French theatre. Includes plays by Racine, Moliere and Corneille, as well as poetry by Lafontaine and Boileau. Prereq: FREN 3112 or 3122 plus one other 3000-level French course or permission of instructor. **Semester Hours:** 3 to 3

FREN 4360 - Eighteenth Century Novel, Theater and Poetry

Studies several novels and plays characteristic of the 18th century as well as some of the more famous poems. Includes Diderot, Rousseau, Voltaire, Marivaux and Laclos. Prereq: FREN 3112 or 3122 plus one other 3000-level French course or permission of instructor. **Semester Hours:** 3 to 3

FREN 4430 - Nineteenth Century French Novel

Development of the French novel during the 19th century. Includes such writers as Stendhal, Hugo, Balzac, George Sand, Flaubert, Maupassant and Zola. Prereq: FREN 3112 or 3122 plus one other 3000-level French course or permission of instructor. Cross-listed with FREN 5430. **Semester Hours:** 3 to 3

FREN 4480 - Twentieth Century French Novel

Represents novels of the 20th century, a period of great innovation in the French novel. Authors generally treated are Camus, Giono, Ernaux and Duras. Prereq: FREN 3112 or 3122 plus one

other 3000-level French course or permission of instructor. Cross-listed with FREN 5480.

Semester Hours: 3 to 3

FREN 4490 - Twentieth Century French Theater

Surveys the major movements in French literature of the 20th century as represented in the theater arts. Such authors as Jarry, Artaud, Apollinaire, Giraudoux, Sartre, and Beckett are discussed. Prereq: FREN 3112 or 3122 plus one other 3000-level French course or permission of instructor. **Semester Hours:** 3 to 3

FREN 4500 - Black Literature of the French-Speaking World

Black poetry, drama, and novel of the French-speaking world in the 20th century. Prereq: FREN 3112 or 3122 plus one other 3000-level French course or permission of instructor. **Semester Hours:** 3 to 3

FREN 4510 - French Women Writers

Designed to explore writings by French and Francophone women from the Middle Ages to the present. Addresses the question of what it means to be a woman and want to write. The selections include a wide variety of genres: autobiographical writings, stories, poems, manifestos, letters, political and historical documents. Prereq: FREN 3112 or 3122 plus one other 3000-level French course or permission of instructor. Cross-listed with FREN 5510 and WGST 4511/5511. **Semester Hours:** 3 to 3

FREN 4600 - History of the French Language

Studies phonological, morphological, and syntactic changes in the language of Gaul from Latin to modern French. Prereq: FREN 3010 and FREN 3050 or FREN 3060 or permission of instructor. Cross-listed with FREN 5600. **Semester Hours:** 3 to 3

FREN 4840 - Independent Study: FREN

Semester Hours: 1 to 3

FREN 4841 - Independent Study: FREN

Semester Hours: 1 to 3

FREN 4970 - Special Topics

Varying topics in French and Francophone language, literature and culture appropriate to the 4000 level, not otherwise covered by regular courses. Prereq: FREN 2120 or equivalent. Note: May be taken more than once, provided that the topic is different each time. **Semester Hours:** 3 to 3

FREN 4995 - Travel Study

For students doing travel study in France; register through the Office of International Education. Cross-listed with FREN 5995. **Semester Hours:** 1 to 15

FREN 5082 - Introduction to Translation

Introduces the methodology and practice of written translation from English to French/French to English. Students will learn techniques on how to avoid word by word translation, faulty

sentence structure and anglicisms by focusing on grammar, syntax and vocabulary. Note: Students must demonstrate third-year competence and advanced writing skills in English. Students with native or near-native level proficiency in French must consult with the French advisor before enrolling in this course. These students may, in some cases, take this course. The instructor of the course and/or the French advisor reserve the right to determine the level of linguistic proficiency of the student and his or her admission to the class by means of an oral interview and/or placement exam scores. Prereq: Graduate standing in French. Cross-listed with FREN 4082. **Semester Hours:** 3 to 3

FREN 5200 - French Civilization Through the Nineteenth Century

Development of French culture and civilization from a historical perspective, beginning with the origins of France and continuing through the 19th century. Includes historical background, sciences and techniques, daily life, the arts, literature and philosophy, and religion. Prereq: Graduate standing in French. **Semester Hours:** 3 to 3

FREN 5210 - French Civilization - Twentieth and Twenty-First Centuries

(Continuation of FREN 5200) The development of French culture and civilization in a historical perspective from the beginning of the 20th century to the present. Includes historical background, sciences and techniques, daily life, the arts, literature and philosophy, and religion. Prereq: Graduate standing in French. **Semester Hours:** 3 to 3

FREN 5430 - Nineteenth Century French Novel

Development of the French novel during the 19th century. Includes such writers as Stendhal, Hugo, Balzac, George Sand, Flaubert, Maupassant and Zola. Prereq: Graduate standing in French. Cross-listed with FREN 4430. **Semester Hours:** 3 to 3

FREN 5480 - Twentieth Century French Novel

Represents novels of the 20th century, a period of great innovation in the French novel. Authors generally treated are Camus, Giono, Ernaux and Duras. Prereq: Graduate standing in French. Cross-listed with FREN 4480. **Semester Hours:** 3 to 3

FREN 5510 - French Women Writers

Designed to explore writings by French and Francophone women from the Middle Ages to the present. Addresses the question of what it means to be a woman and want to write. The selections include a wide variety of genres: autobiographical writings, stories, poems, manifestos, letters, political and historical documents. Prereq: FREN 3112 or 3122 plus one other 3000-level French course or permission of instructor. Cross-listed with FREN 4510 and WGST 4511/5511. **Semester Hours:** 3 to 3

FREN 5600 - History of the French Language

Studies phonological, morphological, and syntactic changes in the language of Gaul from Latin to modern French. Prereq: Graduate standing in French. Cross-listed with FREN 4600. **Semester Hours:** 3 to 3

FREN 5840 - Independent Study: FREN

Semester Hours: 1 to 3

FREN 5995 - Travel Study

For students doing travel study in France; register through the Office of International Education. Cross-listed with FREN 4995. **Semester Hours:** 1 to 15

Global Energy Management Courses (GEMM)

GEMM 6000 - 21st Century Global Energy Issues and Realities

Introduction to the global energy industry's past, present and future. Current and historical issues in regions such as: Atlantic Basin, former Soviet Union, east of Suez, North and South America will be covered. World production centers and markets are discussed to include relevant energy security, scenario planning, risk management and regulation, deregulation, and environmental concerns. Note: Students will learn the geographic distribution of energy resources worldwide including governmental systems. **Semester Hours:** 3 to 3

GEMM 6100 - Global Energy Economics

Course includes energy geo-economics with an introduction to managerial tools of the trade. Topics will include world energy markets-demand and supply; refining and marketing, energy forecasts, oil and gas transportation, and National Oil Companies vs. International Oil Companies. An introduction to environmental economics will also help students connect the energy industry to sustainable work practices. In addition students will learn the geographic distribution of energy resources worldwide along with the political and government systems associated with those resources. **Semester Hours:** 3 to 3

GEMM 6200 - Environmental, Regulatory, Legal & Political Environment in the Energy Industry

Exploration of current political situations regarding the energy industry, its environmental impact in the short and long term. Topics include climate change, pollution, solid wastes and conversions to natural resources. Students will become familiar with national and international energy laws and regulations, financial arrangements, confidentiality, and bidding agreements. **Semester Hours:** 3 to 3

GEMM 6210 - Energy and the Law: Property and Contracts

The elective will focus on the process of managing the use and development of land resources in a sustainable way. Topics such as; public controls, powers used for land regulation, and an intro to real estate will be covered to enhance students understanding of land management and its application to the energy industry. **Semester Hours:** 3 to 3

GEMM 6220 - Interacting With Foreign Governments And State Enterprises

Globalization of many energy companies, dwindling U.S. energy sources, and growing overseas energy demand have increased the need for energy professionals to gain expertise in doing business with foreign governments and state enterprises, which play a much greater role in the ownership and operation of energy extraction and energy delivery in virtually all countries beyond the United States and Canada. This course reviews negotiation strategies in the context of uncertain contract enforcement, volatility and uncertainty of prices and restrictions, and highly contentious political contexts. It also reviews the approaches for interacting effectively with state enterprises that are often undercapitalized and inefficient, and examines how valuation of energy assets can take into account political risk, and requirements to provide infrastructure and social services. **Semester Hours:** 3 to 3

GEMM 6300 - Technical Aspects of Energy Science

This course will familiarize students with the newest renewable and alternative energy sources. The course does not focus on hydrocarbon sources but examines challenges and opportunities that exist for the establishment of the new energy sources to become viable in the industry.

Semester Hours: 3 to 3

GEMM 6400 - Leadership and Decision Making in the Global Energy Environment

Students will examine leadership from an energy executive perspective. Topics include: how execs lead, change, innovation, interacting with top management teams, the board, leadership issues involved with governance of the firm, strategies for enhancing executive influence and ethics and responsibilities associated with exec. **Semester Hours:** 3 to 3

GEMM 6410 - People Management in the Global Energy Environment

Explains that people are energy's most important asset. Students will learn the latest research in human resource theories, study models, and learn how to develop organizational effectiveness from the firm's human capital. Concepts on: effective teamwork, attracting and retaining talent and using HR processes such as performance management and development to drive engagement will be discussed. **Semester Hours:** 3 to 3

GEMM 6430 - Organizational Behavior in the Energy Industry

Students will learn how to lead and manage human assets inside energy industries. Students will be exposed to fundamental principles of human behavior and increase their competence of working in diverse settings. Proper management can lead to a sustainable competitive advantage, because of management of employees and developing them into enthusiasts of your firm. **Semester Hours:** 3 to 3

GEMM 6450 - Strategic Management of the Energy Industry

The course focuses on how to improve an organization's competitiveness in a changing global environment. Emphasis on sustainable strategies, students develop skills to formulate, implement and evaluate organizational strategies in the rapidly changing environment.

Semester Hours: 3 to 3

GEMM 6460 - Integrated Information Management for Energy Firms

This course covers issues associated with developing an integrated information managing strategy to identify major information categories used with an energy firm. It covers relationships to business processes to guide applications development and facilitate the integration and sharing of data. Using case studies from energy firms operational, administrative and strategic systems will be discussed. **Semester Hours:** 3 to 3

GEMM 6470 - Energy Marketing

This course covers the challenges faced by energy industries in developing branding, and developing new markets. Marketing both products and the company to its stakeholders, in the face of competitive pressures, students learn practical marketing tools and how they can be used to effect corporate strategy. **Semester Hours:** 3 to 3

GEMM 6500 - Energy Accounting in the Global Markets

The course builds a basic understanding of how to convey to decision makers, in and out of the firm, information about its resources. Emphasis on; analysis of income statements, balance sheet, statement and cash flows (historical financial accounting information) with specific coverage of cost-volume-profit, variance, forecasting, joint interest accounting and measurement of divisional performance. **Semester Hours:** 3 to 3

GEMM 6600 - Introduction To Financial Management In The Energy Industry

Introduction to fundamental principal of asset valuation and financing in competitive global markets. Providing the tools necessary to analyze day-to-day financial issues in the energy industry (time value of money, valuation of income streams, risk weighted investment returns.) Topics such as: risk management, arbitrage, hedging and foreign exchange will be covered. **Semester Hours:** 3 to 3

GEMM 6610 - Advanced Financial Management in the Energy Industry

This course is focused on understanding the costs and benefits of various forms of capital. By examining internal and external managers, students will be able to assess alternative capital sources to achieve their strategic objectives. The course will introduce effective investor communication techniques. **Semester Hours:** 3 to 3

GEMM 6620 - Energy Asset & Production Management for the Energy Industry

The course covers management of an organization's energy resources and facilities as well as broader coverage of project management. Portfolio strategy, planning, scope, time, cost, quality and organizational effectiveness will be addressed. Also when budget, material, vendor relations or other factors disrupt a project, students will be prepared on how to react. **Semester Hours:** 3 to 3

GEMM 6630 - Commercialization Management of Renewable Energies

This course will focus on the business aspects running a renewable energy entity either as a separate company or sector within an established company. Students taking this course have completed a previous course on the basic science of renewable energy. This course is intended to focus on leadership issues and decision making regarding renewable energy. As a significant part of the course, students will learn how to review information and data supplied to them by engineers, accountants, finance, marketing, scientists, and other stakeholders within and outside their company including federal, state, and local governments and regulatory agencies to make sound business decisions. **Semester Hours:** 3 to 3

GEMM 6690 - Special Topics

This elective course is intended to be a variable-credit course specially designed to provide national and international learning opportunities. The course will offer concentrated problem-solving experiences within the energy industry through travel to industry-significant cities and regions, while meeting and visiting with people working and dealing with issues in the industry. **Semester Hours:** 1 to 3

Geography Courses (GEOG)

GEOG 1102 - World Regional Geography

Analysis of the relationships of man and the landscape based on geographic distributions in the world. **Semester Hours:** 3 to 3

GEOG 1111 - Freshman Seminar

Semester Hours: 1 to 3

GEOG 1202 - Introduction to Physical Geography

The science that studies the processes, forms, and spatial or geographic structures of natural systems operating at or near the earth's surface, including weather, climate, and landform processes. **Semester Hours:** 3 to 3

GEOG 1302 - Introduction to Human Geography

Systematic introduction to basic concepts and approaches in human geographic analysis. **Semester Hours:** 3 to 3

GEOG 1332 - Topics in Science

A series of five-week modules on various topics in physical geography. Section 001. Violent Storms. Analysis of the causes, characteristics, and regional patterns of thunderstorms, tornadoes and hurricanes, emphasizing the hazards associated with each type of storm. Section 002. Elementary Surveying. Introduces the various techniques of running a traverse, location of points by intersection and resection, determination of distance by pacing, chaining, stadia and trigonometry and carrying of elevations. Section 003. Basic Navigation. Introduces the principles of navigation using the sun as the celestial body. Emphasis is on determining latitude and longitude at solar noon. Section 004. Earthquakes. The characteristics, causes, and results of earth movements along faults. Section 005. Waves and Beaches. Analysis of wind-generated waves in the open ocean and the changes that occur as waves enter shallow water, forming surf. The tides and seismic sea waves are discussed for comparison. Section 006. Rivers and Flood Plains. Introduces the nature of stream channels and stream landscapes, with emphasis on the problems associated with man's occupation of such landscapes. Section 007. World Food and Hunger. Analysis of the world food problem with emphasis on the nutritional characteristics of major foods, the physical factors affecting food production, and the potential of the world's land for producing food. Section 008. Volcanoes. Why do some volcanoes erupt and some flow? Why do they occur where they do? How do they affect the environment and man? We discuss these aspects and other characteristics of volcanoes in this course section. **Semester Hours:** 1 to 1

GEOG 1602 - Introduction to Urban Studies

Surveys the process of urbanization, emphasizing the development of American cities and using Denver as an example. Topics covered include the evolution of metropolitan form and land use patterns, cultural landscape formation, city planning and architectural design, and urban social and policy issues. **Semester Hours:** 3 to 3

GEOG 2080 - Introduction to Mapping and Map Analysis

Studies major elements in the preparation of thematic maps, including sources of data collection and manipulation of data, and cartographic techniques for display of data. **Semester Hours:** 3 to 3

GEOG 2202 - Natural Hazards

Surveys those physical phenomena that often cause substantial damage when they occur in areas of human settlement. **Semester Hours:** 3 to 3

GEOG 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 1 to 3

GEOG 3100 - Geography of Colorado

An analysis of the physical environment, history of settlement, and resource base of Colorado in relation to present economic patterns of the state. **Semester Hours:** 3 to 3

GEOG 3110 - Geography of North America

Systematic study of the physical, cultural, economic, and political relationships that shape the landscape of the United States, Canada, Greenland, and the U.S.-Mexico Borderlands.

Semester Hours: 3 to 3

GEOG 3120 - Geography of Europe

An analysis of the physical environment, resource utilization, economic development and cooperation in Europe. A cultural and political geography which focuses on continuity and change in Eastern and Western Europe. **Semester Hours:** 3 to 3

GEOG 3130 - Central America and the Caribbean

Surveys the physical environment and cultural development of Central America and the Caribbean Islands. **Semester Hours:** 3 to 3

GEOG 3140 - Geography of South America

The physical environment, cultural development, and political instability within the area are analyzed. Influence of the landscape and climate, as well as Iberian cultural and land tenure patterns on historic settlement and modern growth are discussed. Problems associated with population, economics, politics, education, and geography are emphasized. **Semester Hours:** 3 to 3

GEOG 3150 - Middle East

Physical, cultural, and economic approach to the arid lands of the Middle East, including Arab land of the Sahara. **Semester Hours:** 3 to 3

GEOG 3160 - Geography of China

Geographic survey of the physical, cultural, and economic features characterizing the geography of China. **Semester Hours:** 3 to 3

GEOG 3232 - Weather and Climate

Introduces the processes and systems that govern both day-to-day weather and longer-term climate variations. Covers instrumentation and weather forecasting techniques. Prereq: GEOG 1202 or permission of instructor. **Semester Hours:** 3 to 3

GEOG 3240 - Colorado Climates

Provides a broad overview of the various weather and climate patterns that are found within the state of Colorado. To accomplish this, the state of Colorado will be divided into regions which (hopefully) have a large degree of homogeneity in terms of weather and climate controls. Note: Taught in a seminar style with students giving presentations and reports on their findings about a given region. Prereq: GEOG 1202 and/or GEOG 3232 or permission of instructor. **Semester Hours:** 3 to 3

GEOG 3300 - Population and Resources in the World Environment

Increasing world human populations are examined in the context of regional and global resources. Opposing viewpoints are studied, and students are required to complete a case study of a self-selected issue analyzing viewpoints associated with relevant opposing opinions. Prereq: upper division standing. **Semester Hours:** 3 to 3

GEOG 3302 - Water Resources

Introduces water resources aimed at students with little or no background in the field. This is a broad course covering topics ranging from the physical aspects of water to water politics and international law. While the course is largely a lecture format, discussion of current issues is a significant part of the class. **Semester Hours:** 3 to 3

GEOG 3401 - Geography of Food and Agriculture

An overview of food systems and agriculture as they impact an increasingly urbanized planet. We will survey historical food production and preservation, food justice and insecurity, land-use and preservation, as well as local and global systems of distribution and consumption. **Semester Hours:** 3 to 3

GEOG 3411 - Globalization and Regional Development

Addresses global political-restructuring and its implications for regional development in the U.S. Both historical and contemporary processes of globalization are examined. Topics include: the environmental basis of American industrial growth, the relationship between technological change and geographical shifts, the rise and decline of Fordism, the transfer of Japanese manufacturing methods to the U.S., the role of regional and national industrial policy, and the social consequences of globalization for labor and communities. **Semester Hours:** 3 to 3

GEOG 3430 - Geography of Tourism

Geographic analysis of trends in recreation, travel, and tourism, and their economic, social, and environmental impacts. Examines growth and change in resorts and tourist destination areas. Prereq: GEOG 1302 or 3411. **Semester Hours:** 3 to 3

GEOG 3440 - Ecotourism

The geographic study of a growing segment in contemporary tourism aimed at the provision of low impact travel to fragile, pristine and usually protected areas with the purpose of directly benefitting local communities and ecological conservation. The course surveys leading destination areas for ecotourism worldwide. GEOG 1302, GEOG 3411 or GEOG 3430 recommended. **Semester Hours:** 3 to 3

GEOG 3501 - Geography of Health

Offers a critical geographic perspective to human health issues, examining disease distributions, how changing relationships between people and their environments (natural, built, and social environments) influence health, and different approaches to the study of health in geography.

Semester Hours: 3 to 3

GEOG 3770 - Geography and Film

Geographic analysis of past and current film production and distribution systems and the complex relationships between film making and place in feature, documentary and educational film. Prereq: GEOG 1302 or 2411. **Semester Hours:** 3 to 3

GEOG 3840 - Independent Study: GEOG

Semester Hours: 1 to 3

GEOG 3939 - Internship

Designed experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

GEOG 3990 - Special Topics

Investigation of current topics in geography such as analysis of issues (crime, public transportation), techniques (socioeconomic impact analysis), or areas of specialization (climatology). Prereq: Vary with each topic, but no less than six hours in relevant social or physical science. **Semester Hours:** 3 to 3

GEOG 4000 - Planning Methods I

Focuses on the application of statistical, quantitative, and mathematical techniques and computer applications for urban and regional planning and policy development. Major topics include types of data, sampling, basic probability distributions, hypothesis **Semester Hours:** 3 to 3

GEOG 4010 - Landscape Geochemistry

A holistic approach to studying the role chemical elements play in synthesis/decomposition cycles, and the resultant environment from interaction of the lithosphere with the hydrosphere, atmosphere, biosphere, and pedosphere during geological, and ecologi **Semester Hours:** 3 to 3

GEOG 4020 - Earth Environments and Human Impacts

Basic concepts describing earth's biomes and physical environment are presented in a systems context. Global warming assessment, from both political and scientific perspectives, is then presented. Model visualization of these concepts to consider human impacts on Earth's biomes is discussed. Earth system viewpoint, having links of Earth's biomes to oceans and atmosphere, completes the course discussion. Prereq: GEOG 1202 and 3232 or permission of instructor. Cross-listed with ENV5 5020, GEOL 4020. **Semester Hours:** 3 to 3

GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing

An in-depth treatment of the use of aerial photographs and other forms of imagery for the analysis of urban-industrial patterns, vegetation, agriculture, landforms, and geologic structure. Prereq: GEOG 2080 or permission of instructor. Cross-listed with G **Semester Hours:** 3 to 3

GEOG 4070 - Remote Sensing II: Advanced Remote Sensing

Focuses on digital image processing of satellite and aerial images. Students explore the nature of digital image data, gain an understanding of image analysis using PCs, and learn about the use of analysis products in the development of GIS databases. Pre **Semester Hours:** 3 to 3

GEOG 4080 - Introduction to GIS

Introduces Geographic Information Systems (GIS), including justification, hardware/software, database design, and data conversion. GIS is a computer-based mapping system providing a graphical interface to locational and relational attribute data. Includes **Semester Hours:** 3 to 3

GEOG 4081 - Cartography and Computer Mapping

Provides an introduction to the art and science of cartography (map making). Students will learn about design principles, tools and techniques of map production, culminating in the creation of a high-quality map through hands-on exercises. Prereq: GEOG 20 **Semester Hours:** 3 to 3

GEOG 4085 - GIS Applications for the Urban Environment

Takes a more detailed look at basic concepts presented in the introductory GIS course, concentrating on how GIS is used to solve real-world geographic problems. Various GIS applications within both the natural and social sciences are highlighted. The sele **Semester Hours:** 3 to 3

GEOG 4090 - Environmental Modeling with Geographic Information Systems

Expands the basic knowledge of GIS to spatial models. Establishes a comprehensive framework that can be used to address a wide range of applications in natural and built environments. Prereq: GEOG 4080 or GEOG 5080 or permission of instructor. Cross-listed **Semester Hours:** 3 to 3

GEOG 4095 - Deploying GIS Functionality on the Web

Covers the core principles and technologies that allow the deployment of geographic information system (GIS) functionality over the World Wide Web. Hands-on exercises make use

of the latest commercial software as well as open source technologies. Prereq: **Semester Hours: 3 to 3**

GEOG 4150 - Place, Landscape, and Meaning

Investigates concepts that constitute place and landscape--how they are not just simply "there." Incorporates different schools of thought to help understand why landscapes are objects inseparable from us and open to multiple interpretations and meanings. Prereq: Introductory human geography or instructor permission. Cross-listed with GEOG 5150. **Semester Hours: 3 to 3**

GEOG 4220 - Environmental Impact Assessment

The objective of this course is to provide the foundation for understanding the environmental impact assessment process, its legal context, and the criteria and methods for procedural and substantive compliance. Prereq: URPL 5530 or permission of instructor **Semester Hours: 3 to 3**

GEOG 4230 - Hazard Mitigation and Vulnerability Assessment

Examines hazard mitigation and its planning and policy implications, emphasizing how vulnerability assessments play an integral role. Students explore how mitigation minimizes the impacts from hazards and use GIS to conduct a local study. Prereq: GEOG 2202 or permission of instructor. Cross-listed with GEOG 5230. **Semester Hours: 3 to 3**

GEOG 4235 - GIS Applications in the Health Sciences

Examines how GIS is used throughout the health care industry and public health. Covers environmental health, disease surveillance, and health services research. Students critically review current literature and gain hands-on experience with GIS software. Prereq: GEOG 4080 or GEOG 5080, public health background, or consent of instructor. Cross-listed with GEOG 5235, HBSC 7235. **Semester Hours: 3 to 3**

GEOG 4240 - Geomorphology

Investigates changes in Earth's physical landscapes incl. aeolian, coastal, fluvial, glacial, karst, periglacial & volcanic processes & landforms as related to rock decay, soils & climatic forcings. Field trips and hands-on tasks using a variety of geomo **Semester Hours: 3 to 3**

GEOG 4260 - Natural Resource Planning and Management

Considers methods for managing renewable and non-renewable resources using both legislative and economic controls. The role of technology, ideologies, and equity are discussed. Decision making techniques are applied to problems of resource and environment **Semester Hours: 3 to 3**

GEOG 4265 - Sustainability in Resources Management

Sustainability and sustainable development are the dominant economic, environmental and social issues of the 21st century. Follows a multi-disciplinary approach to these concepts. Case studies demonstrate their implementation in different geographical, ecological and socio-economic conditions worldwide. Prereq: ENVS 1042 or permission of instructor. Cross-listed with GEOG 5265. **Semester Hours: 3 to 3**

GEOG 4270 - Glacial Geomorphology

Provides an in-depth view of the processes and systems found in glacial environments. Topics include: evidence of past glaciation; present-day glacial extent; glacier dynamics; glacial erosional processes and landforms; glacial depositional processes and landforms. Prereq: GEOG 1202 or GEOL 1072. Cross-listed with GEOG/GEOL 4270/5270. **Semester Hours:** 3 to 3

GEOG 4280 - Environmental Hydrology

Examination of hydrologic processes in relation to climate, soils, vegetation, land-use practices, and human interactions. Natural scientific perspectives emphasized; field and laboratory included. Prereq: GEOG 1202 AND one of: 1) GEOG 3232; 2) GEOG 4240/GEOL 4240/GEOG 5240; 3) GEOG 4010/GEOL 4010/ENVS 5000. Cross-listed with GEOL 4280 and ENVS 5280. **Semester Hours:** 4 to 4

GEOG 4335 - Contemporary Environmental Issues

Provides an overview of environmental challenges facing society today, focusing on how humans impact and change the environment. Opposing views and environmental policy at the local, state, national, and international levels are explored. Cross-listed with GEOG 5335. **Semester Hours:** 3 to 3

GEOG 4350 - Environment and Society in the American Past

Overview of the geographical development of North American society from the late 15th century to the mid-20th century. A comparative regional approach emphasizing relationships between natural resource exploitation, cultural landscape formation and environmental change. Cross-listed with GEOG 5350. **Semester Hours:** 3 to 3

GEOG 4400 - Regional Economic Development

Examines the economies of metropolitan, rural, state, and national regions, placing each within the fabric of global relations that direct capital, manage productive activities, and govern prosperity's geography. Organized both sectorally and spatially, t **Semester Hours:** 3 to 3

GEOG 4420 - The Politics of Nature

Examines how economic systems, scientific discovery, institutional policies, and environmental knowledge converge to shape the environment and mediate the way societies understand, manage and respond to environmental changes in both the United States and the developing world. Cross-listed with GEOG 5420. **Semester Hours:** 3 to 3

GEOG 4440 - Science, Policy and the Environment

Examines the social, economic and political forces shaping scientific discovery and the development and enforcement of environmental policy. Students will examine perspectives on issues such as risk, expertise, uncertainty and objectivity that influence the problem-defining, standard-setting and policy-making process. Cross-listed with GEOG 5440. **Semester Hours:** 3 to 3

GEOG 4450 - Urban Food and Agriculture: Perspectives and Research

Provides an overview of research & practices in urban farming. Critically reviews emergent models of local food production/distribution. Compares new practices to traditional agribusiness. Assesses the prospects for solving sustainability problems within the modern agro-food system. Prerequisite GEOG 3401. Cross-list ENV5 5450. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

GEOG 4460 - Sustainable Urban Agriculture Field Study I

Provides a field-based overview of urban farm planning & management. Topics: range/land conservation, native/invasive species, water distribution, animal husbandry, government interaction, local markets, community relations, conservation easements and issues pertaining to urban farming. Prerequisite GEOG 4450. Cross-list ENV5 5460. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

GEOG 4470 - Sustainable Urban Agriculture Field Study II

Provides a field-based overview of current practices in local agricultural production. Emphasis will be placed on sustainable practices and their most efficient situation, Special consideration will be given to plausible solutions for food insecure communities both local and global. Prerequisite GEOG 4450, 4460. Cross-list ENV5 5470. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

GEOG 4630 - Transportation Planning I: Transport Network Analysis

Examines several important aspects of the transport network: accessibility and connectivity of nodes and linkages and the volume and direction of the flow of a transport network. Descriptive, predictive, and planning methods and models discussed include g **Semester Hours:** 3 to 3

GEOG 4640 - Urban Geography: Denver and the U.S.

Uses a combined lecture/seminar format to explore research themes in urban geography. Topics covered include both historical and contemporary processes of urban development and transformation. Particular emphasis is placed on the U.S. and Colorado's Front Range. Cross-listed with GEOG 5640. **Semester Hours:** 3 to 3

GEOG 4670 - Transportation Planning II: Urban Transportation Planning

Examines major issues of transportation in urban development, the urban transportation system, the relationship between land use planning and transportation planning, urban transportation planning processes and selected issues. Introduces the use of two s **Semester Hours:** 3 to 3

GEOG 4680 - Urban Sustainability: Perspectives and Practice

Examines various perspectives on sustainability, including ambiguities and opportunities of sustainability as a conceptual framework. Class also examines what sustainability looks like in practice, using numerous topics such as poverty and urban farming to water and climate change. Cross-listed with GEOG 5680. **Semester Hours:** 3 to 3

GEOG 4700 - Synthesis for Interdisciplinary Science

Synthesis is an approach in interdisciplinary research and education that links ideas, data and methods. This course develops synthesis skills through the lens of systems theory. It includes exercises for synthetic thinking, examination of integrative t **Semester Hours:** 3 to 3

GEOG 4710 - Disasters, Climate Change, and Health

Provides a review of the impacts of disasters and climate change on human health, using a broad framework of preparedness, mitigation, response, recovery, and adaptation. Prereq: GEOG 2202 or GEOG 3501. **Semester Hours:** 3 to 3

GEOG 4770 - Applied Statistics for the Natural Sciences

Surveys statistical techniques including: quick review of basic statistics, tests for normality and outliers, display of data; simple and multiple regression; ANOVA and its relation to regression. Emphasis on computer or stat-pak analysis and interpretation of statistical results. Prereq: College algebra and GEOG 3080, or consent of instructor. Cross-listed with ENVS 5600, GEOL 4770, 5770. **Semester Hours:** 3 to 3

GEOG 4840 - Independent Study: GEOG

Independent research primarily for undergraduate majors. Prereq: Permission of department. **Semester Hours:** 1 to 3

GEOG 4850 - Understanding And Communicating Field Methods

Interdisciplinary course that presents a balanced overview of common field methods and how to communicate them effectively to a general audience. Includes hands-on experience with various field methods (e.g., transects, survey design, historical assessment, GIS, etc.) and communication strategies. Prereq: Introductory geography or environmental science course, and graduate or advanced upper-level standing, or instructor permission. Cross-listed with GEOG 5850 and ENVS 4850/5850. **Semester Hours:** 3 to 3

GEOG 4900 - Colloquium

Engages students and faculty in discussion of current and pertinent world topics, including specific readings, (guest) presentations, and creation of working research papers, among other items. Students and faculty may work in research groups to accomplish specific goals. Prereq: Advanced Standing (undergrad). Cross-listed with ENVS 4900, ENVS 5900, GEOG 5900. **Semester Hours:** 1 to 1

GEOG 4940 - Senior Seminar

Introduces students to the professional literature in the field. Various professionals and faculty lecture about geography/planning research and careers. **Semester Hours:** 3 to 3

GEOG 4950 - Honors Thesis

A capstone course designed to promote critical thinking, research methodology, and writing/oral presentation skills. Students design and develop a research project under the supervision of a faculty advisor. Each student gives an oral presentation or defense of his or her

thesis at the end of the semester in which they enroll. Prereq: GEOG 4940 and junior or senior standing. **Semester Hours:** 3 to 3

GEOG 4990 - Special Topics

Semester Hours: 3 to 3

GEOG 4995 - Travel Study

Rigorous yet flexible fieldwork-based experience exploring geographical and environmental phenomena in diverse world locations. Course begins with intensive regional and methodological introductions, followed by on-location field investigations in environmental analyses, cultural studies, GIS applications, tourism evaluation and/or hazards assessment. Prereq: GEOG 1202 and GEOG 1302, or permission of instructor. Cross-listed with ENVS 4995, ENVS 5995, and GEOG 5995. **Semester Hours:** 3 to 9

GEOG 4998 - Geography By Rail

Systematic and geographic exploration of region(s) mainly via train, focused on creating broad understanding of peoples, cultures, and landscapes. This course represents an intensive, field-based experience that may encompass both physical and cultural c **Semester Hours:** 1 to 12

GEOG 5060 - Remote Sensing I: Introduction to Environmental Remote Sensing

An in-depth treatment of the use of aerial photographs and other forms of imagery for the analysis of urban-industrial patterns, vegetation, agriculture, landforms, and geologic structure. Cross-listed with GEOG 4060, GEOL 4060, GEOL 5060. Completion of **Semester Hours:** 3 to 3

GEOG 5070 - Remote Sensing II: Advanced Remote Sensing

Focuses on digital image processing of satellite and aerial images. Students explore the nature of digital image data, gain an understanding of image analysis using PCs, and learn about the use of analysis products in the development of GIS databases. Pre **Semester Hours:** 3 to 3

GEOG 5080 - Introduction to GIS

Introduces Geographic Information Systems (GIS), including justification, hardware/software, database design, and data conversion. GIS is a computer-based mapping system providing a graphical interface to locational and relational attribute data. Includes **Semester Hours:** 3 to 3

GEOG 5081 - Cartography and Computer Mapping

Provides an introduction to the art and science of cartography (map making). Students will learn about design principles, tools and techniques of map production, culminating in the creation of a high-quality map through hands-on exercises. Cross-listed wi **Semester Hours:** 3 to 3

GEOG 5085 - GIS Applications for the Urban Environment

Takes a more detailed look at basic concepts presented in the introductory GIS course, concentrating on how GIS is used to solve real-world geographic problems. Various GIS

applications within both the natural and social sciences are highlighted. The sele **Semester Hours:** 3 to 3

GEOG 5090 - Environmental Modeling with Geographic Information Systems

Expands the basic knowledge of GIS to spatial models. Establishes a comprehensive framework that can be used to address a wide range of applications in natural and built environments.

Prereq: GEOG 4080 or GEOG 5080 or permission of instructor. Cross-listed with GEOG 4090.

Semester Hours: 3 to 3

GEOG 5095 - Deploying GIS Functionality on the Web

Covers the core principles and technologies that allow the deployment of geographic information system (GIS) functionality over the World Wide Web. Hands-on exercises make use of the latest commercial software as well as open source technologies. Prereq: GEOG 4080 or GEOG 5080, computer science background, or permission of instructor. Cross-listed with GEOG 4095. **Semester Hours:** 3 to 3

GEOG 5150 - Place, Landscape, and Meaning

Investigates concepts that constitute place and landscape--how they are not just simply "there." Incorporates different schools of thought to help understand why landscapes are objects inseparable from us and open to multiple interpretations and meanings. Prereq: Introductory human geography or graduate standing. Cross-listed with GEOG 4150. **Semester Hours:** 3 to 3

GEOG 5220 - Environmental Impact Assessment

The objective of this course is to provide the foundation for understanding the environmental impact assessment process, its legal context, and the criteria and methods for procedural and substantive compliance. Prereq: URPL 5530 or permission of instruct **Semester Hours:** 3 to 3

GEOG 5230 - Hazard Mitigation and Vulnerability Assessment

Examines hazard mitigation and its planning and policy implications, emphasizing how vulnerability assessments play an integral role. Students explore how mitigation minimizes the impacts from hazards and use GIS to conduct a local study. Prereq: GEOG 2202 or permission of instructor. Cross-listed with GEOG 4230. **Semester Hours:** 3 to 3

GEOG 5235 - GIS Applications in the Health Sciences

Examines how GIS is used throughout the health care industry and public health. Covers environmental health, disease surveillance, and health services research. Students critically review current literature and gain hands-on experience with GIS software. Prereq: GEOG 4080 or GEOG 5080, public health background, or consent of instructor. Cross-listed with GEOG 4235, HBSC 7235. **Semester Hours:** 3 to 3

GEOG 5240 - Geomorphology

Investigates changes in Earth's physical landscapes incl. aeolian, coastal, fluvial, glacial, karst, periglacial & volcanic processes & landforms as related to rock decay, soils & climatic forcings. Field trips and hands-on tasks using a variety of geomo **Semester Hours:** 3 to 3

GEOG 5265 - Sustainability in Resources Management

Sustainability and sustainable development are the dominant economic, environmental and social issues of the 21st century. Follows a multi-disciplinary approach to these concepts. Case studies demonstrate their implementation in different geographical, ecological and socio-economic conditions worldwide. Prereq: ENVS 1042 or permission of instructor. Cross-listed with GEOG 4265. **Semester Hours:** 3 to 3

GEOG 5270 - Glacial Geomorphology

Provides an in-depth view of the processes and systems found in glacial environments. Topics include: evidence of past glaciation; present-day glacial extent; glacier dynamics; glacial erosional processes and landforms; glacial depositional processes and landforms. Prereq: GEOG 1202 or GEOL 1072. Cross-listed with GEOG/GEOL 4270/5270. **Semester Hours:** 3 to 3

GEOG 5335 - Contemporary Environmental Issues

Provides an overview of environmental challenges facing society today, focusing on how humans impact and change the environment. Opposing views and environmental policy at the local, state, national, and international levels are explored. Cross-listed with GEOG 4335. **Semester Hours:** 3 to 3

GEOG 5350 - Environment and Society in the American Past

Overview of the geographical development of North American society from the late 15th century to the mid-20th century. A comparative regional approach emphasizing relationships between natural resource exploitation, cultural landscape formation and environmental change. Cross-listed with GEOG 4350. **Semester Hours:** 3 to 3

GEOG 5420 - The Politics of Nature

Examines how economic systems, scientific discovery, institutional policies, and environmental knowledge converge to shape the environment and mediate the way societies understand, manage and respond to environmental changes in both the United States and the developing world. Cross-listed with GEOG 4420. **Semester Hours:** 3 to 3

GEOG 5440 - Science, Policy and the Environment

Examines the social, economic and political forces shaping scientific discovery and the development and enforcement of environmental policy. Students will examine perspectives on issues such as risk, expertise, uncertainty and objectivity that influence the problem-defining, standard-setting and policy-making process. Cross-listed with GEOG 4440. **Semester Hours:** 3 to 3

GEOG 5640 - Urban Geography: Denver and the U.S.

Uses a combined lecture/seminar format to explore research themes in urban geography. Topics covered include both historical and contemporary processes of urban development and transformation. Particular emphasis is placed on the U.S. and Colorado's Front Range. Cross-listed with GEOG 4640. **Semester Hours:** 3 to 3

GEOG 5680 - Urban Sustainability: Perspectives and Practice

Examines various perspectives on sustainability, including ambiguities and opportunities of sustainability as a conceptual framework. Class also examines what sustainability looks like in practice, using numerous topics such as poverty and urban farming to water and climate change. Cross-listed with GEOG 4680. **Semester Hours:** 3 to 3

GEOG 5710 - Disasters, Climate Change, and Health

Provides a review of the impacts of disasters and climate change on human health, using a broad framework of preparedness, mitigation, response, recovery, and adaptation. Prereq: GEOG 2202 or GEOG 3501. **Semester Hours:** 3 to 3

GEOG 5840 - Independent Study

Section 1, economic; 2, physical; 3, urban; 4, social; 5, quantitative; 6, transportation. **Semester Hours:** 1 to 3

GEOG 5850 - Understanding And Communicating Field Methods

Interdisciplinary course that presents a balanced overview of common field methods and how to communicate them effectively to a general audience. Includes hands-on experience with various field methods (e.g., transects, survey design, historical assessment, GIS, etc.) and communication strategies. Prereq: Introductory geography or environmental science course, and graduate or advanced upper-level standing, or instructor permission. Cross-listed with GEOG 4850 and ENVS 4850/5850. **Semester Hours:** 3 to 3

GEOG 5900 - Colloquium

Engages students and faculty in discussion of current and pertinent world topics, including specific readings, (guest) presentations, and creation of working research papers, among other items. Students and faculty may work in research groups to accomplish specific goals. Prereq: graduate student status. Cross-listed with ENVS 4900, ENVS 5900, GEOG 4900. **Semester Hours:** 1 to 1

GEOG 5939 - Internship

Semester Hours: 1 to 6

GEOG 5990 - Special Topics In Geography

Course content varies from semester to semester, depending on faculty member teaching the course. Prereq: Graduate standing. **Semester Hours:** 1 to 6

GEOG 5995 - Travel Study

Rigorous yet flexible fieldwork-based experience exploring geographical and environmental phenomena in diverse world locations. Course begins with intensive regional and methodological introductions, followed by on-location field investigations in environmental analyses, cultural studies, GIS applications, tourism evaluation and/or hazards assessment. Prereq: GEOG 1202 and GEOG 1302, or permission of instructor. Cross-listed with ENVS 4995, ENVS 5995, and GEOG 4995. **Semester Hours:** 3 to 9

GEOG 5998 - Geography By Rail

Systematic and geographic exploration of region(s) mainly via train, focused on creating broad understanding of peoples, cultures, and landscapes. This course represents an intensive, field-based experience that may encompass both physical and cultural c **Semester Hours:** 1 to 12

GEOG 6300 - Foundations Seminar in Human-Environmental Interaction

This seminar allows students to gain a deeper appreciation for historical and contemporary geographical approaches to understanding the relationship between society and the environment through a survey review of seminal concepts, theories and debates that have shaped the discipline. **Semester Hours:** 3 to 3

GEOG 6700 - Integrated Methods

Geographers employ a variety of quantitative and qualitative methods in their research. The course presents these methods as a continuum, rather than separate typologies, and reviews the difference between integrated and mixed methods. Students will evaluate how and when to apply various methods to most appropriately elicit data. **Semester Hours:** 3 to 3

GEOG 6750 - Research Design

Reviews research framework common to all geographers. Reviews the key steps in designing and executing high-caliber independent research, including topic selection, literature review and data collection analysis. Students will develop competence in applying relevant theories from the natural and social sciences through projects. **Semester Hours:** 3 to 3

GEOG 6800 - Community-Based Research Practicum

Service-based learning course for students to apply the concepts and skills presented throughout the masters program in a community setting. Students will participate in a real-world, studio based project that meets the needs of a government, non-governmental, or private sector organization and will produce a scoped product. **Semester Hours:** 3 to 3

GEOG 6840 - Independent Study: GEOG

Independent research for graduate major students. Prereq: Permission of department. **Semester Hours:** 1 to 3

GEOG 6950 - Master's Thesis

Semester Hours: 6 to 6

GEOG 8990 - Doctor's Thesis

Semester Hours: 1 to 8

Geology Courses (GEOL)

GEOL 1022 - History of Life

Non-technical study of fossils through time and their relationships to environments through earth history. Includes discussion of evolution and extinction events and current controversies.

Semester Hours: 3 to 3

GEOL 1072 - Physical Geology: Surface Processes

Introductory course in physical geology that covers surface processes and landforms, and includes one all-day field trip. Note: Required for geology majors. **Semester Hours:** 4 to 4

GEOL 1082 - Physical Geology: Internal Processes

Introductory course in physical geology that covers internal processes and properties of the earth's interior, with plate tectonics as the underlying theme. Includes one all-day field trip. Note: Required for geology majors. **Semester Hours:** 4 to 4

GEOL 1111 - Freshman Seminar

Semester Hours: 1 to 3

GEOL 1115 - Earth Sciences Content

Covers content areas of undergraduate earth sciences. Topics include physical geology; historical geology; oceanography; meteorology; and astronomy. **Semester Hours:** 1 to 3

GEOL 1202 - Introduction to Oceanography

Surveys modern scientific knowledge of the world's oceans. Intended for non-science students, the course offers a non-quantitative introduction to the major facts and principles of physical, chemical, biological, and geological oceanography. The impact of natural and anthropic events on the marine environment are included. **Semester Hours:** 3 to 3

GEOL 1302 - Introduction to Astrogeology

Surveys the geology of the planets and their environments in space, including the origin and destiny of the universe. Intended for non-majors, the course provides an introduction to the geological origin, evolution, structure, and geomorphology of the planets. **Semester Hours:** 3 to 3

GEOL 1400 - Geology of the National Parks

Combines lecture and laboratory exercises to help students interpret Earth history using the national parks as examples. Students learn to identify the common rocks and minerals, and how to interpret topographic and geologic maps. **Semester Hours:** 3 to 3

GEOL 1402 - Introduction to the Ice Ages

Surveys the natural history of earth's ice ages, the processes that led to paleoclimatic change, environmental changes, and the effects on the geological earth. Included are topics in ocean-atmosphere influences, glaciers, glacial geology, influences on world flora and fauna, extinction of pleistocene mammal populations and the emergence of hominids. **Semester Hours:** 3 to 3

GEOL 1840 - Independent Study: GEOL

Semester Hours: 1 to 3

GEOL 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 1 to 3

GEOL 3011 - Mineralogy

Principles of mineralogy, including crystallography, crystal chemistry, and a systematic study of the more important nonsilicate and silicate minerals. Origins and occurrences of minerals.

Prereq: Physical geology and college-level chemistry. **Semester Hours:** 4 to 4

GEOL 3032 - Geology of Colorado

Introductory course focused on the geology of Colorado. The course is divided into two parts: the first half covers general principles of geology, and the second is devoted to the observation of rock types, structures, and geologic relationships in the field. Discussion of plate tectonics, rock formation, construction and interpretation of geologic maps, the geologic time scale, geologic provinces of Colorado, evolution of major landforms, formation and development of mineral resources of Colorado, and current topics in environmental geology. **Semester Hours:** 3 to 3

GEOL 3100 - Current Perspectives on the Evolution of Consciousness and Culture

Studies of evolution traditionally regard morphology (anatomy)/behavior and mind/consciousness as separate fields that belong either in biology/paleontology or in psychology/philosophy. The "middle ground" behavior, anthropology, social systems, is also treated separately in most cases. Recent approaches tend toward a more holistic view using unifying principles and "laws of nature" that show similar processes (dissipative effects, information theory, development theory) operating across all fields. Examines the relationships and common threads between the physical anatomical evolution of organisms and their behavior perception and consciousness. Prereq: Introductory course in evolution (biology/paleontology), psychology, philosophy, anthropology or permission of instructor. Cross-listed with PHIL 3100 and RLST 4280. **Semester Hours:** 3 to 3

GEOL 3102 - Dinosaurs Past and Present

A broad-based, non-technical new look at the world's most popular prehistoric animals. Stresses the rapid and perennial growth of knowledge about dinosaurs and the relevance of such knowledge in the 20th century. Prereq: Introductory geology and/or biology are recommended. **Semester Hours:** 3 to 3

GEOL 3231 - Introductory Petrology

Introduces classification, distribution, and origin of igneous, metamorphic, and sedimentary rocks, including their identification in hand-held specimens. Prereq: Physical geology and mineralogy. **Semester Hours:** 4 to 4

GEOL 3411 - Introductory Paleontology

Studies invertebrate fossils, including a survey of the organic world and its history in the geological past. Includes an introduction to evolution and paleoecology, and discussion of the uses of fossils in geologic correlations. Prereq: Introductory geology-surface processes, or an introductory biology class. **Semester Hours:** 4 to 4

GEOL 3415 - Museum Studies in Paleontology

A practical laboratory-based course covering aspects of museum studies related to paleontological collections. Students learn how to stabilize and prepare bones removed from fossil quarries; learn molding and casting techniques for bones and fossils; assist with the cataloging and curation of the collection; and participate in designing museum displays. Prereq: At least one science class. Cross-listed with ELED 5480, SECE 5480. **Semester Hours:** 3 to 3

GEOL 3418 - Field Paleontology

Introduces methods of paleontological field techniques, including care and maintenance of a late Jurassic dinosaur quarry, field conservation techniques, quarry map-making and surveying, paleontological sampling, and fossil extraction. Students also contribute to research and fossil collections at CU-Denver. Prereq: At least one science class. **Semester Hours:** 1 to 1

GEOL 3421 - Sedimentation and Stratigraphy

Introduces the principles of sedimentology and stratigraphy. Emphasis is on dynamic processes within sedimentary environments and the resulting stratigraphic record. Prereq: GEOL 1082 or equivalent. **Semester Hours:** 4 to 4

GEOL 3840 - Independent Study: GEOL

Semester Hours: 1 to 3

GEOL 3939 - Internship

Designed experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

GEOL 4010 - Landscape Geochemistry

A holistic approach to studying the role chemical elements play in synthesis/decomposition cycles, and the resultant environment from interaction of the lithosphere with the hydrosphere, atmosphere, biosphere, and pedosphere during geological, and ecologi **Semester Hours:** 3 to 3

GEOL 4020 - Earth Environments and Human Impacts

Basic concepts describing earth's biomes and physical environment are presented in a systems context. Global warming assessment, from both political and scientific perspectives, is then presented. Model visualization of these concepts to consider human impacts on Earth's biomes is discussed. Earth system viewpoint, having links of Earth's biomes to oceans and atmosphere, completes the course discussion. Cross-listed with ENVS 5020, GEOG 4020. **Semester Hours:** 3 to 3

GEOL 4030 - Environmental Geology

Applies geological information to interactions between people and the physical environment. Increasing awareness of its importance in our society means that this is an expanding field as companies are required to address the environmental consequences of their actions. Prereq: Entry into MSES program, senior standing in sciences or geography, or permission of instructor. Cross-listed with ENVS 5030 and GEOL 5030. **Semester Hours:** 3 to 3

GEOL 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing

An in-depth treatment of the use of aerial photographs and other forms of imagery for the analysis of urban-industrial patterns, vegetation, agriculture, landforms, and geologic structure. Prereq: GEOG 3080 or consent of instructor. Cross-listed with GEOL 5060, GEOG 4060, 5060. **Semester Hours:** 3 to 3

GEOL 4111 - Field Methods In Geology

Introduction to the basic methods of geologic mapping (metamorphic, sedimentary, and igneous rocks), including use of the Brunton compass and Jacob Staff, as well as preparation of measured stratigraphic sections, geologic maps, and geologic cross-sections. Prereq: GEOL 1072 or GEOG 1202, GEOL 3421 strongly recommended. Cross-listed with GEOL 5111. **Semester Hours:** 3 to 3

GEOL 4240 - Geomorphology

Investigates changes in Earth's physical landscapes incl. aeolian, coastal, fluvial, glacial, karst, periglacial & volcanic processes & landforms as related to rock decay, soils & climatic forcings. Field trips and hands-on tasks using a variety of geomo **Semester Hours:** 3 to 3

GEOL 4270 - Glacial Geomorphology

Provides an in-depth view of the processes and systems found in glacial environments. Topics include: evidence of past glaciation; present-day glacial extent; glacier dynamics; glacial erosional processes and landforms; glacial depositional processes and landforms. Prereq: GEOG 1202 or GEOL 1072. Cross-listed with GEOG/GEOL 4270/5270. **Semester Hours:** 3 to 3

GEOL 4280 - Environmental Hydrology

Examination of hydrologic processes in relation to climate, soils, vegetation, land-use practices, and human interactions. Natural scientific perspectives emphasized; field and laboratory included. Prereq: GEOG 1202 and one of: 1) GEOG 3232; 2) GEOG 4240/GEOL 4240/GEOG 5240; 3) GEOG 4010/GEOL 4010/ENVS 5000. Cross-listed with GEOG 4280 and ENVS 5280. **Semester Hours:** 4 to 4

GEOL 4402 - Unsaturated Zone Hydrology

Focuses on water and contaminant transport through the unsaturated zone, infiltration and drainage, and heat and gas transport. Students learn to design, perform field installation, and collect data in order to model and predict contaminant movement on/off site. Prereq: Chemistry, physics, calculus or permission of instructor. Cross-listed with ENVS 5403. **Semester Hours:** 3 to 3

GEOL 4460 - Vertebrate Paleontology and Evolution

Surveys the evolutionary history of the backboneed animals from primitive fish through dinosaurs to man. Includes paleoecology, functional morphology, and uses of vertebrate fossils in geologic correlations. Prereq: Introductory geology, biology or anthropology. **Semester Hours:** 3 to 3

GEOL 4513 - Geology of the Grand Canyon

Raft down the Grand Canyon and examine the geology of igneous, sedimentary, and metamorphic rocks from the Precambrian to the Holocene. Study marine and terrestrial fossils, migmatization and observe modern sedimentary processes. Prereq: GEOL 1072 or 10 **Semester Hours:** 3 to 5

GEOL 4770 - Applied Statistics for the Natural Sciences

Surveys statistical techniques including: quick review of basic statistics, tests for normality and outliers, display of data; simple and multiple regression; Anova and its relation to regression. Emphasis on computer or stat-pak analysis and interpretation of statistical results. Prereq: College algebra and GEOG 3080, or consent of instructor. Cross-listed with GEOL 5770, GEOG 4770, ENVS 5600. **Semester Hours:** 3 to 3

GEOL 4780 - Engineering Geology

Studies geology as utilized in engineering and environmental practice. Emphasizes a conceptual integration of geologic materials, processes, and rates of change as a basis for successful application of geologic knowledge to environmental planning and engineering design projects. Prereq: MATH 2411 and CVEN 2121. Cross-listed with GEOL 5780 and CVEN 4780. **Semester Hours:** 4 to 4

GEOL 4840 - Independent Study: GEOL

Semester Hours: 1 to 3

GEOL 4995 - Travel Study

Fieldwork- and research-based experience studying a diverse selection of geologic settings worldwide. Students individually research geologic areas of interest in an assigned region, followed by on-location field investigations and measurements of geologic data and phenomena. Note: Topics vary depending on region under study, student interest, and faculty specialty. Prereq: GEOL 1072 and 1082, or permission of instructor. Cross-listed with GEOL 5995. **Semester Hours:** 3 to 9

GEOL 5001 - RM-MSMSP: Earth Processes I

Systematic study of geological concepts, rock and mineral formation, plate tectonics, volcanism and earthquakes, landforms and weathering, historical environmental interpretation. Includes a field component. This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: Permission of project director. **Semester Hours:** 4 to 4

GEOL 5002 - RM-MSMSP: Earth Sciences II - Sedimentology and Paleontology

Field and lecture course building on Earth Sciences I, which covers internal earth processes. Students learn about erosional processes and how sedimentary rocks are deposited and may be preserved; the different ways fossils are preserved; describing rocks in the field; and collecting, preparing and describing fossils. Provides an overview of the geology of the area so that students can place the detailed studies in context. This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: GEOL 5001 (or equivalent) or permission of project director. **Semester Hours:** 4 to 4

GEOL 5003 - RM-MSMSP: Earth Science in Context

Designed for teachers in the RM-MSMSP program. Topics include global climate change, glaciers, coastal geology, volcanism, and their effects on culture. Monuments such as Florissant Fossil Beds, Ice Core, Cave of the Winds and a quarry will be visited. Note: This course is not applicable toward any degree in the College of Liberal Arts and Sciences. **Semester Hours:** 4 to 4

GEOL 5004 - RM-MSMSP Research Experience for Teachers - Geology Cohort

A five-week research exploration in which RM-MSMSP teachers will raise their level of relevant scientific understanding by engaging in a "hands-on" workshop, transforming what they have learned into new curricular materials that will improve the scientific abilities of their students and hopefully stimulate them to consider a STEM career. Note: Credit may not apply toward any CLAS degree. **Semester Hours:** 1 to 6

GEOL 5030 - Environmental Geology

Applies geological information to interactions between people and the physical environment. Increasing awareness of its importance in our society means that this is an expanding field as companies are required to address the environmental consequences of their actions. Prereq: Entry into MSES program, senior standing in sciences or geography, or permission of instructor. Cross-listed with GEOL 4030 and ENVS 5030. **Semester Hours:** 3 to 3

GEOL 5060 - Remote Sensing I: Introduction to Environmental Remote Sensing

An in-depth treatment of the use of aerial photographs and other forms of imagery for the analysis of urban-industrial patterns, vegetation, agriculture, landforms, and geologic structure. Prereq: GEOG 3080 or consent of instructor. Cross-listed with GEOL 4060, GEOG 4060, 5060. **Semester Hours:** 3 to 3

GEOL 5111 - Field Methods in Geology

Introduction to the basic methods of geologic mapping (metamorphic, sedimentary, and igneous rocks), including use of the Brunton compass and Jacob Staff, as well as preparation of measured stratigraphic sections, geologic maps, and geologic cross-sections. Prereq: GEOL 1072 or GEOG 1202, GEOL 3421 strongly recommended. Cross-listed with GEOL 4111. **Semester Hours:** 3 to 3

GEOL 5240 - Geomorphology

Investigates changes in Earth's physical landscapes incl. aeolian, coastal, fluvial, glacial, karst, periglacial & volcanic processes & landforms as related to rock decay, soils & climatic forcings. Field trips and hands-on tasks using a variety of geomo **Semester Hours:** 3 to 3

GEOL 5270 - Glacial Geomorphology

Provides an in-depth view of the processes and systems found in glacial environments. Topics include: evidence of past glaciation; present-day glacial extent; glacier dynamics; glacial erosional processes and landforms; glacial depositional processes and landforms. Prereq: GEOG 1202 or GEOL 1072. Cross-listed with GEOG/GEOL 4270/5270. **Semester Hours:** 3 to 3

GEOL 5770 - Applied Statistics for the Natural Sciences

Surveys statistical techniques including: quick review of basic statistics, tests for normality and outliers, display of data; simple and multiple regression; Anova and its relation to regression. Emphasis on computer or stat-pak analysis and interpretation of statistical results. Prereq: College algebra and GEOG 3080, or consent of an instructor. Cross-listed with GEOL 4770, GEOG 4770, ENVS 5600. **Semester Hours:** 3 to 3

GEOL 5780 - Engineering Geology

Studies geology as utilized in engineering and environmental practice. Emphasizes a conceptual integration of geologic materials, processes, and rates of change as a basis for successful application of geologic knowledge to environmental planning and engineering design projects. Cross-listed with GEOL 4780 and CVEN 5780. **Semester Hours:** 4 to 4

GEOL 5939 - Internship

Semester Hours: 1 to 6

GEOL 5950 - Master's Thesis

Semester Hours: 1 to 8

GEOL 5995 - Travel Study

Fieldwork- and research-based experience studying a diverse selection of geologic settings worldwide. Students individually research geologic areas of interest in an assigned region, followed by on-location field investigations and measurements of geologic data and phenomena. Note: Topics vary depending on region under study, student interest, and faculty specialty. Prereq: GEOL 1072 and 1082, or permission of instructor. Cross-listed with GEOL 4995. **Semester Hours:** 3 to 9

GEOL 6840 - Independent Study: GEOL

Semester Hours: 1 to 3

GEOL 6950 - Master's Thesis

Semester Hours: 1 to 8

GEO 6960 - Master's Project

Semester Hours: 1 to 8

Greek Courses (GREK)

GREK 1010 - Greek I: Biblical

Intended for students of languages, religious studies, and philosophy. Introduces the forms and syntax of Greek so that in the 13th week students will be able to read about 85% of the New Testament in the original language. **Semester Hours:** 5 to 5

GREK 1020 - Greek II: Biblical

A continuation of 1st-semester Biblical and Classical Greek. Covers the remaining forms and syntax of the textbook, with an emphasis on sight-reading passages from the New Testament. At the end of the course we will read, translate and study short fragments and lines written by some Pre-Socratic philosophers such as Thales, Anaxagoras, Anaximander, Heraclitus, and Parmenides. Prereq: GREK 1010. **Semester Hours:** 5 to 5

GREK 2110 - Greek III: Classical

Introduction to classical Greek, followed by reading of Plato's "Apology" with selections from "Pre-Socratic philosophers" (e.g. Xenophanes of Colophon, Zeno of Elea, Pythagoras) and Aristotle. Prereq: GREK 1020. **Semester Hours:** 3 to 3

German Courses (GRMN)

GRMN 1000 - Germany and the Germans

Introduces the ways in which the various aspects of German culture help define German life and national identity. By examining art, music and media, primarily of the 20th century, students explore what it means to be German. Note: Taught in English. **Semester Hours:** 3 to 3

GRMN 1010 - Beginning German I

Introduces basic grammar, sentence structure and speech patterns. Note: Students may not enroll in any lower division (1000/2000) language skills course in which their level of proficiency exceeds that of the course. Students placing into a course through any means other than following the regular sequence must consult with an appropriate faculty member of the Dept. of Modern Languages prior to enrollment. **Semester Hours:** 5 to 5

GRMN 1020 - Beginning German II

(Continuation of GRMN 1010.) Note: Students may not enroll in any lower division (1000/2000) language skills course in which their level of proficiency exceeds that of the course. Students placing into a course through any means other than following the regular sequence must consult with an appropriate faculty member of the Dept. of Modern Languages prior to enrollment. Prereq: GRMN 1010 or one year of high school German. **Semester Hours:** 5 to 5

GRMN 1111 - Freshman Seminar

Semester Hours: 1 to 3

GRMN 2110 - Intermediate German I

(Continuation of German 1020.) Note: Students may not enroll in any lower division (1000/2000) language skills course in which their level of proficiency exceeds that of the course. Students placing into a course through any means other than following the regular sequence must consult with an appropriate faculty member of the Dept. of Modern Languages prior to enrollment. Prereq: GRMN 1020 or two years of high school German. **Semester Hours:** 3 to 3

GRMN 2130 - Intermediate German II

A fourth-semester course designed for those majoring or minoring in International Affairs. Along with grammar review, the course deals with contemporary topics in cultural, political, economic and social affairs. Note: Open to all those wanting to satisfy a fourth semester language requirement to qualify for upper division German courses. Satisfies the language requirement for the minor in International Affairs, may be applied to the major and minor in German, and will satisfy the fourth-semester foreign requirement at most graduate schools. Prereq: GRMN 2110 or placement by exam. **Semester Hours:** 3 to 3

GRMN 2150 - Intermediate German II: Grammar Review and Oral Practice

Prepares students for upper division. German language skills courses. Students practice abilities gained in previous semesters of language instruction, improve conversational abilities, develop skills using reference works, learn tactics for reading and discussing newspaper style German and develop written composition abilities. Note: Students may not enroll in any lower division

(1000/2000) language skills course in which their level of proficiency exceeds that of the course. Students placing into a course through any means other than following the regular sequence must consult with an appropriate faculty member of the Dept. of Modern Languages prior to enrollment. Taught in German. Prereq: GRMN 2110 or equivalent. **Semester Hours:** 3 to 3

GRMN 2210 - Readings and Translation

Stresses reading and translation skills rather than speaking. Students work with short German texts in a variety of areas: natural and social sciences, history and literature. Note: Taught in English. Prereq: GRMN 1020. **Semester Hours:** 3 to 3

GRMN 2240 - Intermediate Composition and Vocabulary Building

A fourth-semester composition and vocabulary building course. Note: Taught in English. Prereq: GRMN 2110 or 2210. **Semester Hours:** 3 to 3

GRMN 2840 - Independent Study: GRMN

Semester Hours: 1 to 3

GRMN 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours with 2.75 GPA. **Semester Hours:** 1 to 3

GRMN 2995 - Travel Study

For students doing travel study in Germany; register through the Office of International Education. **Semester Hours:** 1 to 15

GRMN 3030 - Advanced Conversation: Idioms and Vocabulary Building

An advanced conversation course, using small-group discussion, skits, and short oral presentations to improve fluency in spoken German and to build vocabulary. Prereq: GRMN 2130 or fourth semester equivalency. **Semester Hours:** 3 to 3

GRMN 3050 - Phonetics and Pronunciation of German

Students acquire skills for articulating German with a high degree of accuracy, and systematically develop a more native-like pronunciation of German. Students learn basic linguistic principles for the purpose of gaining insight into the mechanics of spoken German. Note: Taught in German. Prereq: GRMN 2130. **Semester Hours:** 3 to 3

GRMN 3060 - Advanced German Language Skills I

An advanced course in German language skills with equal emphasis devoted to speaking, listening, reading and writing. Students improve their cultural awareness, pronunciation, and vocabulary as well. Specific grammar topics include: subjunctive I and II, participles I and II, extended adjectives, verb tenses, gender of nouns, and reflexive. Note: Primary language of instruction for this course is German. Prereq: GRMN 2130 or permission of instructor. **Semester Hours:** 3 to 3

GRMN 3070 - Advanced German Language Skills II

An advanced course in German language skills with equal emphasis devoted to speaking, listening, reading and writing. Students improve their cultural awareness, pronunciation and vocabulary. Specific grammar topics include: semantic categories, functions of nouns, determiners, adjectives, relative clauses, pronouns. Note: Primary language of instruction for this course is German. Prereq: GRMN 2130 or permission of instructor. **Semester Hours:** 3 to 3

GRMN 3080 - Advanced German Language Skills III

An advanced course in German language skills with equal emphasis devoted to speaking, listening, reading and writing. Students improve their cultural awareness, pronunciation, and vocabulary as well. Specific grammar topics include: prepositions and idioms, "da" compounds, German syntax, clause typology numerals, and time expressions. Note: Primary language of instruction for this course is German. Prereq: GRMN 2130 or permission of instructor. **Semester Hours:** 3 to 3

GRMN 3090 - Advanced German Language Skills IV

An advanced course in German language skills with equal emphasis devoted to speaking, listening, reading, and writing. Students improve their cultural awareness, pronunciation and vocabulary. Specific grammar topics include: modal verbs, complex clause and sentence structure, "werden," passive voice, double infinitives, perfect infinitives, and dependent infinitives. Note: Primary language of instruction for this course is German. Prereq: GRMN 2130 or permission of instructor. **Semester Hours:** 3 to 3

GRMN 3110 - Introduction to German Literature I

Selected readings from German short stories, drama, and poetry, primarily from the modern period. Emphasis on techniques of reading. Note: Primary language of instruction for this course is German. Prereq: GRMN 2110. **Semester Hours:** 3 to 3

GRMN 3130 - Current Topics of the German-Speaking World

Combines discussion and writing on political, economic, and social conditions in contemporary Germany, Austria and Switzerland. Articles from current German newspapers, magazines, television broadcasts, and the World Wide Web are analyzed for a better understanding of how citizens of these countries see themselves and the world. Prereq: Any third-year German course. **Semester Hours:** 3 to 3

GRMN 3200 - Current German Society and Culture

Provides students with a detailed overview of the systems in modern, united Germany such as social, educational, and political. Examines how Germany sees itself as a vital member of the EU. Exposes students to rudimentary use of the German language. Prereq: Sophomore standing or permission of instructor. **Semester Hours:** 3 to 3

GRMN 3230 - German Civilization I: From Medieval Through Age of Idealism

Selected highlights of major cultural aspects of the Middle Ages, the Reformation, the Enlightenment, and the Age of Idealism. **Semester Hours:** 3 to 3

GRMN 3240 - German Civilization II: The Modern Age

Selected highlights of major cultural aspects of the later 19th century, the Wilhelminian period, the Weimar Republic, the Third Reich, and the period since 1945. **Semester Hours:** 3 to 3

GRMN 3310 - Techniques of Translation

Trains students in strategic translation skills that aid in rapid comprehension of short German texts and the ability to render them into well written contemporary English. Students choose content areas of individual interest (e.g. history, literature, chemistry). Prereq: GRMN 2130 or permission of instructor. **Semester Hours:** 3 to 3

GRMN 3512 - Faust in Literature and Music

Surveys the Faust legend in literature and music. Includes works by Marlowe, Goethe, Berlioz, Schumann, Gounod, Boito and others. **Semester Hours:** 3 to 3

GRMN 3540 - German Cinema and Society

Studies several key German films from 1918 to the present that illuminate the political/cultural discourses of their times. Readings from historical and film-critical texts aid in contextualizing the films. Note: Taught in English. **Semester Hours:** 3 to 3

GRMN 3840 - Independent Study: GRMN

Semester Hours: 1 to 3

GRMN 3939 - Internship

Designed experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

GRMN 3995 - Travel Study

For students doing travel study in Germany; register through the Office of International Education. **Semester Hours:** 1 to 15

GRMN 4050 - Advanced German Phonetics and Language History

Students develop advanced phonetic skills for analyzing the sounds and orthography of German. They apply these skills by examining the diachronic (historic) developments in the grammatical and phonological structures of German over the last two millennia. Note: Taught in German. Prereq: GRMN 3050 or equivalent. **Semester Hours:** 3 to 3

GRMN 4840 - Independent Study: GRMN

Semester Hours: 1 to 3

GRMN 4995 - Travel Study

For students doing travel study in Germany; register through the Office of International Education. **Semester Hours:** 1 to 15

GRMN 5995 - Travel Study

For students doing travel study in Germany; register through the Office of International Education. **Semester Hours:** 1 to 15

Health & Behavioral Sciences Courses (HBSC)

HBSC 1111 - Freshman Seminar

Semester Hours: 3 to 3

HBSC 2001 - Understanding Community and Public Health

The field of public health combines a broad diversity of strategies and methods from the health and social sciences to address contemporary public health issues. This course introduces undergraduate students to the mission, history, knowledge base, values, concepts, and tools of community and public health. **Semester Hours:** 3 to 3

HBSC 2051 - Introduction to Population Studies

Examines current issues in population growth, fertility, mortality and migration in the United States and globally. Introduces students to the basic tools of demography and encourages them to think critically about the causes and consequences of population change. Cross-listed with PBHL 2051. **Semester Hours:** 3 to 3

HBSC 3001 - Introduction to Epidemiology

Introduces the basic concepts of public health and epidemiology, including assessment of disease in the community, the study of causation and association of disease with lifestyle and environmental risk factors, as well as related special topics. Cross-listed with PBHL 3001.

Semester Hours: 4 to 4

HBSC 3002 - Ethnicity, Health and Social Justice

Surveys core issues contributing to racial or ethnic minority differences in health status. Historical and contemporary U.S. health and social policy, including the areas of environmental health, sexual and reproductive health, children and immigrants, are examined. Cross-listed with ETST 3002 and PBHL 3002. **Semester Hours:** 3 to 3

HBSC 3010 - Human Sexuality and Public Health

The focus of this course is on human sexuality using a public health lens, examining a number of sexual health issues and their relationship to individual, familial, organizational, and social-level influences. Additionally, we will focus on identifying both primary prevention and intervention approaches to reducing sexual risk factors and increasing healthy behaviors. Cross-listed with PBHL 3010. **Semester Hours:** 3 to 3

HBSC 3021 - Fundamentals of Health Promotion

Provides an overview of the field of health promotion, including an introduction to key theories and methods, as well as exposure to the breadth of programs and diversity of settings through several case studies. Includes attention to health behaviors as contributors to current public health problems and community-based approaches to health promotion in addressing them. Cross-listed with PBHL 3021. **Semester Hours:** 3 to 3

HBSC 3031 - Health, Human Biology and Behavior

Introduces the multi-factorial nature of human health and well-being. The course considers the influences of biology (genetics), behavior, environment, culture and social determinants, and health policy on the nature of disease and health problems from an integrated perspective.

Cross-listed with PBHL 3031. **Semester Hours:** 3 to 3

HBSC 3041 - Health, Culture and Society

This course examines health and illness for individuals, families, and societies from multiple international perspectives, focused on topics such as traditional vs. Western medicine, characteristics of healers and therapeutic relationships, and stigmatized segments of society and their health status. Cross-listed with PBHL 3041. **Semester Hours:** 3 to 3

HBSC 3071 - Global Topics in Sexual and Reproductive Health

Surveys trends and determinants of sexual and reproductive health around the globe and in the United States. Examines the social and behavioral determinants of sexual and reproductive health and the influence of policy. Cross-listed with PBHL 3071. **Semester Hours:** 3 to 3

HBSC 3200 - Human Migration: Nomads, Sojourners, and Settlers

Explores the relationship between human migration, voluntary and forced, and social organization and culture in the modern world. Case studies include pastoralists, foragers, refugees, immigrants, sojourners, and settlers and their impact on health, culture, identity, ethnicity, tradition and nationality. Cross-listed with ANTH 3200 and PBHL 3200. **Semester Hours:** 3 to 3

HBSC 3939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

HBSC 4020 - Global Health: Comparative Public Health Systems

Within a limited period of time, middle and low income countries have experienced dramatic changes that affect the length and quality of peoples' lives. The health indicators for each country reflect a rich and meaningful context within interacting systems. **Semester Hours:** 3 to 3

HBSC 4021 - Community Health Assessment

Introduces applied methods of public health, including: analyzing community-level assessment data, developing a causal model for selected health outcomes, maximizing community participation in the assessment process, developing assessments as a team, and setting the stage for effective intervention and evaluation. Prereq: Upper division standing, a course in statistics, and an introductory course in epidemiology (HBSC 4001, 5001). Cross-listed with HBSC 5021. **Semester Hours:** 3 to 3

HBSC 4031 - Ethnographic Research in Public Health

Qualitative, ethnographic tools for practical applications in public health, including methods of direct observation, informant interviews, focus groups, structured ethnographic methods, rapid assessment and participatory action research. Basic analytic strategies, including review of

computer software, coding and data display techniques. Cross-listed with HBSC 5031 and PBHL 4031. **Semester Hours:** 3 to 3

HBSC 4040 - Social Determinants of Health

This course explores social inequalities in physical and mental health, the illness experience, the healing professions, health policy, relations between providers and patients, and the structure, access to, and financing of health care organizations, with some cross-national discussions.

Prereq: Upper-division standing. Cross-listed with HBSC 5040, PBHL 4040, SOCY 4040/5040.

Semester Hours: 3 to 3

HBSC 4060 - Evolutionary Medicine

Applies evolutionary principles to an understanding of human health and illness. The view complements perspectives on health and disease emanating from biological and social sciences, but considers the health or disease process from the perspective of pathogen and host, current and previous environments, and various phases of the life cycle. Prereq: ANTH 1303. Cross-listed with HBSC 5060, ANTH 4060 and 5060, PBHL 4060. **Semester Hours:** 3 to 3

HBSC 4080 - Global Health Practice

A travel-study course that provides students the opportunity to work on global health issues in the context of a supervised internship experience. In addition to a formal internship placement or directed research opportunity, students attend formal lectures and participate in seminars devoted to addressing those health issues most relevant to the country in which the course is being taught. Prereq: HBSC/ANTH 4010/5014, HBSC/ANTH 4020/5024, HLTH 6070 or equivalent. Cross-listed with HBSC 5080, ANTH 4080 and 5080, PBHL 4080. **Semester Hours:** 3 to 3

HBSC 4090 - Political Economy of Drugs

Psychotropic drugs, both legal and illicit, are a predominant part of our everyday lives. This course examines their use and meaning within cultures, and the social, political and economic issues that surround their production, use and misuse. Prereq: Introductory course in Cultural Anthropology. Cross-listed with ANTH 4090/5090, HBSC 5090, and PBHL 4090. **Semester Hours:** 3 to 3

HBSC 4110 - Public Health Perspectives on Family Violence

Public health views family violence from a prevention perspective. Our exploration of child abuse, intimate partner violence, and other forms of family violence will complement other disciplinary approaches by focusing heavily on the community and social factors that contribute to abusive relationships. Theories of power and coercion and approaches to researching these issues will be analyzed and discussed through our exploration of the various forms of family violence. Prereq: Advanced undergraduate standing. Cross-listed with HBSC 5110 and PBHL 4110. **Semester Hours:** 3 to 3

HBSC 4200 - The Global HIV/AIDS Epidemic

Provides a foundation for a critical analysis of HIV/AIDS in global context, concerning topics such as disease, the body, ethnicity/race, gender, sexuality, risk, addiction, power, and culture

together with a set of ethnographic texts that explore the epidemic's impact. Cross-listed with HBSC 5200 and PBHL 4200. **Semester Hours:** 3 to 3

HBSC 4620 - Health Risk Communication

Acquaints students with contemporary theory, research, and practice in health risk communication. Cross-listed with HBSC 5620, COMM 4620/5620, ENVS 5620, and PBHL 4620. **Semester Hours:** 3 to 3

HBSC 4840 - Independent Study

This course requires active independent learning based upon a written curricular outline and agreement with a faculty from Health and Behavioral Sciences who supervises the student's work throughout the semester. Prereq: Permission of instructor required. **Semester Hours:** 3 to 3

HBSC 4995 - Travel Study

A flexible format that permits courses to be taught in various areas of the world. Prereq: Upper division undergraduate standing and permission of instructor. Cross-listed with HBSC 5995. **Semester Hours:** 3 to 9

HBSC 4999 - Topics in the Health and Behavioral Sciences

An in-depth study of selected social science perspectives/theories and their applications to population health. Topics will vary from semester to semester, with a particular emphasis on current, salient population health problems. Prereq: Junior or senior standing or permission of instructor. Cross-listed with HBSC 5999 and PBHL 4999. **Semester Hours:** 3 to 3

HBSC 5020 - Global Health: Comparative Public Health Systems

Within a limited period of time, middle and low income countries have experienced dramatic changes that affect the length and quality of peoples' lives. The health indicators for each country reflect a rich and meaningful context within interacting systems of economic, social, cultural patterns, and environmental and social justice. Analysis and contrast of public health indicators such as the millennium development goals develop an understanding of the complexity against a background of change. Prereq: Upper division and/or graduate standing. Cross-listed with HBSC 4020 and PBHL 4020. **Semester Hours:** 3 to 3

HBSC 5021 - Community Health Assessment

Introduces applied methods of public health, including: analyzing community-level assessment data, developing a casual model for selected health outcomes, maximizing community participation in the assessment process, developing assessments as a team, and setting the stage for effective intervention and evaluation. Prereq: Upper division standing, a course in statistics, and an introductory course in epidemiology (HBSC 5001, 4001). Cross-listed with HBSC 4021. **Semester Hours:** 3 to 3

HBSC 5031 - Ethnographic Research in Public Health

Qualitative, ethnographic tools for practical applications in public health, including methods of direct observation, informant interviews, focus groups, structured ethnographic methods, rapid

assessment and participatory action research. Basic analytic strategies, including review of computer software, coding and data display techniques. Cross-listed with HBSC 4031 and PBHL 4031. **Semester Hours:** 3 to 3

HBSC 5040 - Social Determinants of Health

This course explores social inequalities in physical and mental health, the illness experience, the healing professions, health policy, relations between providers and patients, and the structure, access to, and financing of health care organizations, with some cross-national discussions.

Prereq: Graduate standing. Cross-listed with HBSC 4040, PBHL 4040, SOCY 4040/5040.

Semester Hours: 3 to 3

HBSC 5060 - Evolutionary Medicine

Applies evolutionary principles to an understanding of human health and illness. The view complements perspectives on health and disease emanating from biological and social sciences, but considers the health or disease process from the perspective of pathogen and host, current and previous environments, and various phases of the life cycle. Prereq: ANTH 1303. Cross-listed with HBSC 4060, ANTH 4060 and 5060, PBHL 4060. **Semester Hours:** 3 to 3

HBSC 5080 - Global Health Practice

A travel-study course that provides students the opportunity to work on global health issues in the context of a supervised internship experience. In addition to a formal internship placement or directed research opportunity, students attend formal lectures and participate in seminars devoted to addressing those health issues most relevant to the country in which the course is being taught. Prereq: HBSC/ANTH 5014/4010, HBSC/ANTH 5024/4020, HLTH 6070 or equivalent. Cross-listed with HBSC 4080, ANTH 4080 and 5080, PBHL 4080. **Semester Hours:** 3 to 3

HBSC 5090 - Political Economy of Drugs

Psychotropic drugs, both legal and illicit, are a predominant part of our everyday lives. This course examines their use and meaning within cultures, and the social, political and economic issues that surround their production, use and misuse. Prereq: Introductory course in Cultural Anthropology. Cross-listed with ANTH 4090/5090, HBSC 4090, and PBHL 4090. **Semester Hours:** 3 to 3

HBSC 5110 - Public Health Perspectives on Family Violence

Public health views family violence from a prevention perspective. Our exploration of child abuse, intimate partner violence, and other forms of family violence will complement other disciplinary approaches by focusing heavily on the community and social factors that contribute to abusive relationships. Theories of power and coercion and approaches to researching these issues will be analyzed and discussed through our exploration of the various forms of family violence. Prereq: Graduate standing. Cross-listed with HBSC 4110 and PBHL 4110. **Semester Hours:** 3 to 3

HBSC 5200 - The Global HIV/AIDS Epidemic

Provides a foundation for a critical analysis of HIV/AIDS in global context, concerning topics such as disease, the body, ethnicity/race, gender, sexuality, risk, addiction, power, and culture together with a set of ethnographic texts that explore the epidemic's impact. Cross-listed with HBSC 4200 and PBHL 4200. **Semester Hours:** 3 to 3

HBSC 5620 - Health Risk Communication

Acquaints students with contemporary theory, research, and practice in health risk communication. Cross-listed with HBSC 4620, COMM 5620/4620, ENVS 5620, and PBHL 4620. **Semester Hours:** 3 to 3

HBSC 5840 - Independent Study

This course requires active independent learning based upon a written curricular outline and agreement with a faculty from Health and Behavioral Sciences who supervises the student's work throughout the semester. Prereq: Permission of instructor required. **Semester Hours:** 3 to 3

HBSC 5939 - Internship

Semester Hours: 1 to 6

HBSC 5995 - Travel Study

A flexible format that permits courses to be taught in various areas of the world. Prereq: Graduate standing and permission of instructor. Cross-listed with HBSC 4995. **Semester Hours:** 3 to 9

HBSC 5999 - Topics in the Health and Behavioral Sciences

An in-depth study of selected social science perspectives/theories and their applications to population health. Topics will vary from semester to semester, with a particular emphasis on current, salient population health problems. Prereq: Graduate standing or permission of instructor. Cross-listed with HBSC 4999 and PBHL 4999. **Semester Hours:** 3 to 3

HBSC 6320 - Human Genetics: Legal, Ethical and Social Issues

Examines legal, ethical, and social issues that have come about with advances in human genetics. Topics include privacy, informed consent, discrimination, forensics, medical malpractice, and property rights. Prereq: Graduate standing. Cross-listed with HBSC 7320, ANTH 6041. **Semester Hours:** 3 to 3

HBSC 6840 - Independent Study: HBSC

Semester Hours: 1 to 3

HBSC 7001 - Colloquium Series in the Health and Behavioral Sciences

Features presentations by core, affiliated and adjunct faculty; alumni; distinguished guest speakers; and students nearing completion of the dissertation. The goal is to expose students to cutting-edge applications of health-related social and biological science research and to introduce students to the research interests of core and affiliated HBS faculty, advanced

students, and alumni who they might otherwise not have the opportunity to meet. Note: Required for ALL first and second year students but open to all graduate students and faculty. May be taken up to three times for credit. **Semester Hours:** 1 to 1 **When Offered:** FALL

HBSC 7011 - Theoretical Perspectives in Health and Behavioral Science I

Covers the following subject areas: philosophy and epistemology of the social and behavioral sciences as they are applied in public health and health care contexts; historical perspectives of Western biomedicine and public health; cross-cultural perspectives on health systems; class, ethnic, and gender correlates of health and sickness; critical perspectives on Western health and health care models; and the structure and organization of health care systems. Note: Part I of a required, two-semester, interdisciplinary, team-taught, seminar-format course that meets three hours a week for the academic year. Prereq: Admission to the Health and Behavioral Sciences program. **Semester Hours:** 3 to 3

HBSC 7021 - Theory in Health and Behavioral Sciences

Covers theories utilized in development and assessment of public health programs with goals to improve health. Students acquire skills in theory building and testing and how to best utilize theory to address pressing health concerns. Prereq: HBSC 7011. **Semester Hours:** 3 to 3

HBSC 7031 - Human Ecology and Environmental Adaptation

Focuses on the interplay of biology, environment, culture, and behavior in the causes and exacerbation of disease. The course includes the following topics: health in environmental and evolutionary contexts; models of causation in biomedicine and other medical systems; individual, community, and population manifestations of health and disease; and biocultural interaction in disease process. Specific case studies drawn from contemporary health problems are used to illustrate in detail the nature of these processes. Prereq: Admission to the Health and Behavioral Sciences program. **Semester Hours:** 3 to 3

HBSC 7041 - Research Design and Methods in the Health and Behavioral Sciences I

This course has four principal aims: (1) to provide students a working knowledge of research methodology as applied to field research efforts; (2) to enable students to apply research methodologies to areas of particular interest in the health and behavioral sciences; (3) to expose students to data manipulation techniques common to social science quantitative research; and (4) to teach basic research proposal development techniques. Prereq: Admission to the Health and Behavioral Sciences program. **Semester Hours:** 3 to 3

HBSC 7051 - Qualitative Research Design and Methods

Much of the data collected in the social sciences is interview- and text-based. This course explores methods for collecting and analyzing these data and theoretical paradigms that underlie these methods. Cross-listed with ANTH 6063. **Semester Hours:** 3 to 3

HBSC 7061 - Quantitative Methods in the Health and Behavioral Sciences

This course introduces students to multivariate regression methods - a set of statistical models that relate an outcome variable to a set of predictor variables. The course emphasizes

understanding and applying regression models to address social science research questions.

Semester Hours: 3 to 3

HBSC 7061 - Social Statistics

This course covers the theory and application of basic and advanced statistical methods for social and health research. **Semester Hours:** 3 to 3

HBSC 7071 - Social and Behavioral Determinants of Health and Disease

Surveys the distribution, determinants, and psychological and behavioral aspects of health and disease. Social, economic, environmental, and cultural variations in and determinants of health, disease, and quality of life, as well as barriers to access and utilization, geopolitical influences, environmental and social injustice, historical trends, and future directions are addressed.

Prereq: HBSC 5001 or equivalent. **Semester Hours:** 3 to 3

HBSC 7111 - Applications of the Health and Behavioral Sciences

The purpose of this course is to help students select and refine a dissertation research topic. Each student, through presentations and discussions of their work, will receive feedback from fellow students and the instructor, and will have an opportunity to improve written and oral presentation skills. Prereq: HBSC 7041. **Semester Hours:** 3 to 3

HBSC 7120 - Human Reproductive Technologies and the Law

Examines the legal, ethical, and social issues that have come about with advances in assisted reproductive technologies (ART). Illustrates how lawyers, judges, bioethicists, legislators, and policy makers have addressed these issues. Prereq: Graduate standing. **Semester Hours:** 3 to 3

HBSC 7121 - Dissertation Proposal and Research

Semester Hours: 6 to 8

HBSC 7210 - Human Health and Environmental Pollution

Examines the roles of technology and society in the etiology and control/prevention of adverse health outcomes associated with releases of toxic substances. Examples come from experience and the literature on occupational cancer and reproductive hazards, occupational and environmental regulation of hazardous wastes, air, and water pollution. Cross-listed with ENVS 6210. **Semester Hours:** 3 to 3

HBSC 7235 - GIS Applications in the Health Sciences

Examines how GIS is used throughout the health care industry and public health. Covers environmental health, disease surveillance, and health services research. Students critically review current literature and gain hands-on experience with GIS software. Prereq: GEOG 4080 or GEOG 5080, public health background, or consent of instructor. Cross-listed with GEOG 4235, GEOG 5235. **Semester Hours:** 3 to 3

HBSC 7310 - Environmental Epidemiology

Provides a basic understanding of the methods used to study the effects on human health of exposures to physical, chemical, or biological factors in the external environment. The course explains the use of epidemiologic methods through a problem solving approach to investigating environmental health case studies. Prereq: A basic statistics course and graduate standing or permission of instructor. Cross-listed with ENVS 6230. **Semester Hours:** 3 to 3

HBSC 7320 - Human Genetics: Legal, Ethical and Social Issues

Examines legal, ethical, and social issues that have come about with advances in human genetics. Topics include privacy, informed consent, discrimination, forensics, medical malpractice, and property rights. Prereq: Graduate standing. Cross-listed with HBSC 6320, ANTH 6041. **Semester Hours:** 3 to 3

HBSC 7340 - Risk Assessment

The process of determining the likelihood and extent of harm that may result from an activity or event. Topics covered are: hazard identification, dose-response evaluation, exposure assessment, and risk characterization. The subjects of risk management, risk perception, and risk communication are also discussed. Prereq: Graduate standing or permission of instructor. Cross-listed with CVEN 5494, ENVS 6200. **Semester Hours:** 3 to 3

HBSC 7360 - Toxicology

Introduces the field of toxicology. Emphasizes the mechanisms by which chemicals produce toxic effects and the methods for assessing toxicity. Note: Designed for students in the environmental sciences and occupational health fields. Prereq: One year college chemistry and one year college biology. Cross-listed with ENVS 6220. **Semester Hours:** 3 to 3

HBSC 7400 - Topics in the Health and Behavioral Sciences

A flexible seminar format for dealing with topics of special interest in the health and behavioral sciences. Topics to be considered vary from semester to semester. Prereq: Graduate standing. **Semester Hours:** 3 to 3

HBSC 8990 - Doctoral Dissertation

Prereq: Admission to the Health and Behavioral Sciences program. **Semester Hours:** 1 to 10

Health Humanities Courses (HEHM)

HEHM 3100 - Introduction to Culture, Society and Medicine

This course introduces students to the rich field of medical humanities. It examines how various disciplines analyze relationships among culture, society and medicine, and what humanistic approaches can teach us about biomedical theory and health care tr **Semester Hours:** 3 to 3

Historic Preservation Courses (HIPR)

HIPR 6010 - Preservation Theory and Practice

The practice of historic preservation has evolved in a specific policy context. This introductory course introduces basic American institutions and laws associated with preservation as well as standards, definitions, and practices associated with these. **Semester Hours:** 3 to 3

HIPR 6090 - Special Topics in Historic Preservation

Various topics in historic preservation, according to current faculty and student interests.

Prereq: HIPR 6010 or permission of instructor. **Semester Hours:** 3 to 3

HIPR 6110 - Regionalisms & the Vernacular

This class explores the history of the built environment from the perspective of evolutionary change; peoples attempting to meet utilitarian needs, respond to environmental forces, societal expectations, and aesthetic aspirations through design. The course looks closely at vernacular structures in a global context. Prereq: HIPR 6010 or permission of instructor. Cross-listed with ARCH 6350. **Semester Hours:** 3 to 3

HIPR 6170 - Preservation Design Studio

Preservation Design Studio provides a project-based learning experience for Historic Preservation students; who are typically integrated into a pre-approved studio of one of the College of Architecture & Planning's departments. Topics vary according to faculty interests. Co-req: HIPR 6171. Cross-listed: Varies by semester. **Semester Hours:** 4 to 4

HIPR 6171 - Preservation Design Seminar

Preservation Design Seminar supports fuller discussion of key themes and concepts in HIPR 6170. Topics vary according to faculty interests. Co-req: HIPR 6170. Cross-listed: Varies by semester. **Semester Hours:** 2 to 2

HIPR 6210 - Survey, Significance, Recognition

This course covers the concept of "historic significance" and develops skills in understanding and professionally utilizing this concept. Procedures and skills are introduced. Prereq: HIPR 6010 or permission of instructor. **Semester Hours:** 3 to 3

HIPR 6310 - Documentation, Analysis, Representation

This methods course focuses on skills development in in-situ documentation of the historic environment. The course includes modules on: a) historic records, b) archaeological evidence, c) building and site measurement, d) photographic & photometric methods, e) geo-spatial data, f) graphic representation, and g) reporting formats. Prereq: HIPR 6010 or permission of instructor. Cross-listed with ARCH 6352. **Semester Hours:** 3 to 3

HIPR 6410 - Urban Conservation: Context for Reuse

This course begins with the premise that human habitats, and especially cities, are dynamic and ever changing; and that the preservationist cannot (and should not try) to freeze cities in a static representation of the past. The course deals with both the philosophical and political contexts,

but emphasizes the role of strategic design intervention in the shaping of evolving cities. This includes traditional preservation activities, but also recognizes the importance of progressive change. Readings are diverse, but at least two case study cities are used to ground the concepts. Class activities include: a) research, b) field study, c) design, and d) presentation. Prereq: HIPR 6010 is recommended. **Semester Hours:** 3 to 3

HIPR 6510 - Building Conservation

This course emphasizes the relationship between knowledge acquisition, professional judgement, and design modification. Topics include: 1) Historic Building Types & Methods, 2) Field and Lab Methods of Building Assessment, and 3) Management of Building Rehabilitation. The course takes an integrative approach to the scientific, aesthetic, managerial and legal dimensions of preservation. Prereq: HIPR 6010 or permission of instructor. Cross-listed with ARCH 6351. **Semester Hours:** 3 to 3

HIPR 6610 - Reading the City

Design and planning professionals, including preservationists, must learn to work in environments with which they have had little previous knowledge. This course emphasizes gaining understanding of a novel environment and translating that knowledge into a well researched and media savvy professional presentation. Students prepare a research plan, then conduct research on a relatively unfamiliar urban environment, such as Chicago (or other major city), returning to prepare, present, and critically reflect upon their applied research through a media-savvy final project. Prereq: HIPR 6410 is recommended. Cross-listed with ARCH 6290. **Semester Hours:** 3 to 3

HIPR 6840 - Independent Study

Studies initiated by students or faculty and sponsored by a faculty member to investigate a special topic or problem related to historic preservation. Prereq: Permission of instructor. **Semester Hours:** 1 to 3

HIPR 6851 - Professional Project

The Professional Project is one of two options for completing the Capstone Requirement. There are multiple ways of satisfying this requirement, but the agreed upon Project must show critically reviewed evidence of professional competence in the field of historic preservation. Prereq: Permission of instructor. **Semester Hours:** 1 to 3

HIPR 6930 - Internship

Designed to provide professional practice experience. The internship is composed of eight to twelve hours per week working in a professional preservation setting during the regular semester. Prereq: Permission of instructor. **Semester Hours:** 3 to 3

HIPR 6951 - Thesis

The Thesis is one of two options for completing the Capstone Requirement. Students may choose to develop a specialized thesis in some topic related to historic preservation. Prereq: LDAR 6949. **Semester Hours:** 6 to 6

History Courses (HIST)

HIST 1016 - World History to 1500

Surveys the rise of civilizations and their interactions from prehistoric to modern times. The emphasis is on the understanding of the various styles or characteristics of civilizations within a global context. **Semester Hours:** 3 to 3

HIST 1026 - World History Since 1500

Surveys the interactions of the world's civilizations in modern times. The emphasis is on understanding the concept of modernization within a global context. **Semester Hours:** 3 to 3

HIST 1111 - Freshman Seminar

Semester Hours: 1 to 3

HIST 1211 - Western Civilization I

Introduces ancient Mediterranean civilization and the birth of Europe. Covers topics on economics and society, political organization, intellectual history, and art from 3000 B.C. to A.D. 1500. **Semester Hours:** 3 to 3

HIST 1212 - Western Civilization II

Introduces modern European civilization and its spread over the world. Covers topics on economics and society, political organization, intellectual history, and art from A.D. 1500 to the 20th century. **Semester Hours:** 3 to 3

HIST 1361 - U.S. History to 1876

Provides an introduction to the major forces, events and individuals that shaped the historical development of American society, beginning with the European settlement of America and concluding with the Civil War, reconstruction and the early growth of an industrial order.

Semester Hours: 3 to 3

HIST 1362 - U.S. History Since 1876

Provides an introduction to the major forces, events, and individuals that shaped the historical development of American society from the Civil War to the present. **Semester Hours:** 3 to 3

HIST 1381 - Paths to the Present

Examines several topics of profound interest to historians world wide: nature and technology, secular and religious faiths, and concepts of political union. The experience of the U.S. as it relates to the experiences of other periods and cultures. **Semester Hours:** 3 to 3

HIST 1400 - Controversies in History

Examines a variety of cases where historians have significant disagreement or diverse interpretations regarding "what happened" and "why," to come to an understanding of what historians do and how they do it. **Semester Hours:** 3 to 3

HIST 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 1 to 3

HIST 3031 - Theory and Practice of History: An Introduction to the Major

Introduces history majors to the discipline at the outset of their course work. Covers historiographical trends and methodologies, and familiarizes students with the various types of research and writing they are likely to encounter in their classes. Note: This course should be taken as early as possible, and must be taken before HIST 4839. **Semester Hours:** 3 to 3

HIST 3121 - The World at War, 1914-1945

Examines World Wars I and II as episodes in a protracted conflict among the nations of the capitalist West, the emerging states of Asia and the colonial world, and the USSR. Studies the causes and consequences of the wars. **Semester Hours:** 3 to 3

HIST 3230 - The American Presidency

Explores the presidency in U.S. History. Topics include: ideological and constitutional foundations; expansion of presidential power in domestic politics and international relations; evolution of presidential campaigns; and dimensions of presidential leadership in politics, society and culture. **Semester Hours:** 3 to 3

HIST 3231 - Famous U.S. Trials

History of the origins and development of the American constitution, with the famous trials and landmark Supreme Court decisions. **Semester Hours:** 3 to 3

HIST 3232 - The American Colonies to 1750

The maturation of the American colonies within the British Empire, the development of commercial and intellectual centers, the creation of uniquely American politics, and the unfolding of critical differences between North and South. **Semester Hours:** 3 to 3

HIST 3235 - U.S. Labor History, 1800 to the Present

Explores the experiences, contributions, and struggles of working-class Americans from the Civil War to the present. Areas of focus include pre-industrial and post-industrial labor, slavery, agricultural labor, gender and working class culture outside of the work place. Particular attention is paid to immigration, ethnicity, race and gender, as they relate to the history of America's laboring class. Prereq: Upper division standing. **Semester Hours:** 3 to 3

HIST 3343 - Women in U.S. History

An analysis of women's place in society, in the work place, and in the political arena over the last 300 years. Cross-listed with WGST 3343. **Semester Hours:** 3 to 3

HIST 3345 - Immigration and Ethnicity in American History

Explores the personal and collective experience of immigrants to America. Discusses problems of assimilation, urban and rural experiences, and implications for politics, the economy and social attitudes. **Semester Hours:** 3 to 3

HIST 3347 - African-American History, 1619-Present

Explores the African-American experience, including definitions of citizenship, strategies for protest and resistance, models of leadership, religious life and cultural expression, divisions of class, color and gender. **Semester Hours:** 3 to 3

HIST 3348 - The African-American Protest Tradition, 1865 - Present

Examines a series of influential African-American activists and considers such themes as intra-racial divisions, Pan-Africanism, black nationalism, the use of the courts and legal efforts, and black conservatism. **Semester Hours:** 3 to 3

HIST 3349 - Social Movements in 20th Century America

By surveying the major American social movements of the twentieth century, this course will explore how Americans have created categories of race, ethnicity, culture, and sexuality and how elite and marginalized citizens have deployed these categories in politics. **Semester Hours:** 3 to 3

HIST 3350 - Colonial Latin America

Surveys the creation of colonial empires by Spain and Portugal, 1492-1808. Topics include Native American responses to European incursions, women in colonial society, and slavery in Latin America. Cross-listed with ETST 3350. **Semester Hours:** 3 to 3

HIST 3360 - Denver History

Introduces the social, political, economic, and cultural life of this mile high metropolis. Founded in the 1858 gold rush, Denver has grown into a five-county metropolis of over two million. Explore this boom and bust history in lectures, slide shows and walking tours. This course offers students a chance to do their own primary source research project, as well as exams and book reports. Note: Open to all students. **Semester Hours:** 3 to 3

HIST 3364 - Native Americans and Spaniards in North America

Examines the interactions between Native Americans and Spanish invaders beginning in the 16th century. The course explores the impact of colonialism in what is today the American Southwest. Focuses on Native American adaptation and resistance to the European presence. **Semester Hours:** 3 to 3

HIST 3365 - Aztlan in the United States: Chicano History from 1821

Explores the impact of U.S. rule on the Southwest, paying particular attention to legal, economic, and social changes that created new political and cultural identities in the Southwest. Cross-listed with ETST 3365. **Semester Hours:** 3 to 3

HIST 3366 - Environmental History of North America

Examines the conversation that the peoples of North America have had with the earth, from Indian prehistory to modern industrial civilization. Out of the people-land dialogue has emerged a variety of cultures, some of which, as we shall see, successfully adapted to their environment, while others failed. Prereq: HIST 1361, 1362, 1381 or 1382. **Semester Hours:** 3 to 3

HIST 3396 - History of the American Indian

Indigenous nations in North America comprise hundreds of diverse cultures. This course examines U.S. Indian policy and how indigenous nations responded; how they creatively adapted, and resisted cultural change; and how they continue to persist culturally, socially, and politically. Cross-listed with ETST 3396. **Semester Hours:** 3 to 3

HIST 3451 - Introduction to African History

By looking at specific examples of the cultural, political, and economic experience of African society, this course attempts to introduce and make comprehensive the diverse history of the people of Africa. **Semester Hours:** 3 to 3

HIST 3460 - Introduction to Latin American History

Surveys the historical development of the modern Latin American countries, beginning with the independence movements of the early 19th century. Emphasizes the 20th century issues and problems that have characterized these countries and affected their relations with the United States. **Semester Hours:** 3 to 3

HIST 3470 - Introduction to Asian History

Introduces the origin and development of civilization in China, Japan and Korea. Explores the relationship between culture and civilization. Readings are drawn from literature, religion, philosophy, anthropology and history. **Semester Hours:** 3 to 3

HIST 3471 - Islam and Asia

The course traces patterns of identity construction and compares social, political and cultural practices across regions and through Asia's diverse states and empires. Taking a broad survey of historical processes led by Asian Muslims, the course asks: why did some regions of Asia convert to Islam in large measure and others not? Why has the nineteenth century been called "Islam's Indian century?" "What is the difference..." between creating a Muslim homeland like Pakistan and an Islamic state like Iran? **Semester Hours:** 3 to 3

HIST 3480 - Introduction to European History

Students are introduced to the major themes of European history and culture from the Enlightenment to the present. **Semester Hours:** 3 to 3

HIST 3481 - Ancient Greece

A history of the Greek-speaking world, from the Bronze Age depicted in Homer's epics to Alexander the Great and the Hellenistic Kingdoms. The course addresses the political, intellectual, socioeconomic, and military history of the eastern Mediterranean, with an emphasis on Greece. **Semester Hours:** 3 to 3

HIST 3482 - Rome: City and Empire

Pagan Rome from its earliest beginnings to the rise of Christianity. Emphasis is on the military, socio-economic, and political history of Rome, its empire in Italy, and its domination of the Mediterranean World (ca. 800 B.C. to A.D. 300). **Semester Hours:** 3 to 3

HIST 3483 - Introduction to Modern South Asia

Surveys the social, economic, and political processes that shaped modern South Asia. Considers issues in contemporary political debates within their original historical contexts and trace the power of relationships that affected changes, long-term continuities, and revivals. **Semester Hours:** 3 to 3

HIST 3484 - British Isles to 1714

A sampler of the rich, diverse, and dramatic history of the peoples of the British Isles. State formation, economic and social change and cultural values are several of the themes threaded through this survey course. **Semester Hours:** 3 to 3

HIST 3485 - British Isles Since 1714

This course examines the dramatic rise of the British industrial, commercial, and political empire during the 18th and 19th centuries and its equally dramatic decline in the 20th century. **Semester Hours:** 3 to 3

HIST 3486 - Renaissance and Reformation

Explores the late 13th through middle 17th centuries when European art and culture changed dramatically, and when Europe was torn by explosive ideological conflicts and religious upheaval. **Semester Hours:** 3 to 3

HIST 3487 - Medieval Europe

Surveys the general history of Europe from the fall of Rome to the opening of modern Europe. **Semester Hours:** 3 to 3

HIST 3488 - Tudor-Stuart England

England's rise from obscurity in 1487 to the dawn of her age of European and world dominance in the early 18th century. Family life and popular culture as well as Henry VIII, Queen Elizabeth, Parliament, and Cromwell. **Semester Hours:** 3 to 3

HIST 3500 - African History in Novels and Films

Introduces modern Africa through the eyes of creative artists. Various topics, such as childhood, religion, and colonialism, are presented from various points of view--African and non-African. **Semester Hours:** 3 to 3

HIST 3601 - Colorado History

Presents the story of the people, society, and culture of Colorado from the earliest Native Americans, through the Spanish influx, the fur traders and mountain men, the gold rush, railroad builders, the cattlemen and farmers, the silver boom, the tourists, and the modern twentieth-century state. **Semester Hours:** 3 to 3

HIST 3606 - Science, Technology, and Society in the Modern World

Examines the relationships among science, technology, and society from the early 19th century to the present. **Semester Hours:** 3 to 3

HIST 3706 - Age of Revolution

Examines revolutions in selected societies around the world during the period from 1750 to 1950. The specific revolutions chosen may vary, but representative upheavals in both the Western and non-Western worlds are examined. **Semester Hours:** 3 to 3

HIST 3810 - Topics

Topics in history with varying subtitles reflecting course content. **Semester Hours:** 3 to 3

HIST 3840 - Independent Study: History

Semester Hours: 1 to 3

HIST 3939 - Internship

Designed experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

HIST 3995 - Travel Study

Created for students doing travel study in a foreign country; register through the Office of International Education. **Semester Hours:** 1 to 15

HIST 4027 - Enlightenment and Revolution

In this course students explore the relationship of ideas and events in Europe during the 17th and 18th centuries. Modernizing trends in the European economy, religion, science, states and international affairs leading up to the French Revolution. Cross-listed with HIST 5027.

Semester Hours: 3 to 3

HIST 4028 - Nations and Classes: 19th Century Europe

Focuses on material and ideological changes in 19th century Europe, exploring social, cultural, political, economic, and intellectual developments. Cross-listed with HIST 5028. **Semester Hours:** 3 to 3

HIST 4029 - Age of Anxiety in Europe

Looks at Europe at the end of the nineteenth century in an effort to determine if there is any relation between the peculiarities in culture at the time and the horrors in politics that followed. Cross-listed with HIST 5029. **Semester Hours:** 3 to 3

HIST 4030 - Europe During the World Wars

Covers the history of the two world wars and their origins, political and social upheaval during the interwar economic crisis, the rise of communism, Italian fascism and Nazism, with an emphasis on cultural production and intellectual life. Cross-listed with HIST 5030. **Semester Hours:** 3 to 3

HIST 4031 - Contemporary Europe

History of Europe since 1945. Students study the economic, social, and political history of Europe since World War II, with a special emphasis on the Cold War and intellectual currents. Cross-listed with HIST 5031. **Semester Hours:** 3 to 3

HIST 4032 - Globalization in World History Since 1945

An interdisciplinary course on contemporary world history and globalization. While the course is historically structured, economic, political, and sociological matters are explored. Cross-listed with HIST 5032. **Semester Hours:** 3 to 3

HIST 4034 - Core Themes in European History

Core themes in modern Europe, 1750 to the present. Cross-listed with HIST 5034. **Semester Hours:** 3 to 3

HIST 4035 - Crisis and Transformation: Europe's 20th Century

This course examines 20th century European history focusing on themes of crisis and transformation. We will explore how devastating wars, economic depression, stark ideological divisions, and revolutionary social, political and cultural movements dramatically changed Europe over the course of the century. Cross-listed with HIST 5035. **Semester Hours:** 3 to 3

HIST 4046 - Victorians and Victorianism

Taking an interdisciplinary perspective, this course examines English people and English life during the reign of Queen Victoria, 1837-1901. What were the defining features of the Victorian age? What did it mean to be "Victorian?" When and why did the Victorian paradigm break down? Cross-listed with HIST 5046. **Semester Hours:** 3 to 3

HIST 4051 - Britain and The Empire

Examines 19th and 20th century British history, addressing social, cultural, and political themes. Explores industrialization, state growth, and imperialism; relationships between race, gender, and class; and the ways in which colonizers and the colonized experienced empire. Cross-listed with HIST 5051. **Semester Hours:** 3 to 3

HIST 4055 - The Atlantic Slave Trade: Africa, Caribbean and U.S.

Presents a broad overview of the slave trade in the Atlantic World, including discussion of the slave plantation, the creation of Caribbean societies and the consequences of independence from Britain. Cross-listed with HIST 5055. **Semester Hours:** 3 to 3

HIST 4062 - Modern France, 1789 to the Present

Considers the shaping of modern France from the 18th century Bourbon Monarchy and aristocratic society to today's liberal democracy, in which multiculturalism, globalization and supranational institutions call into question the very nature of French identity. Cross-listed with HIST 5062. **Semester Hours:** 3 to 3

HIST 4071 - Modern Germany

Surveys the major political, institutional, social, economic, and cultural developments that have occurred in Germany since the late 18th century. Cross-listed with HIST 5071. **Semester Hours:** 3 to 3

HIST 4074 - Post-War Germany

Historical survey of Germany since the second world war, with an emphasis on culture and society. Cross-listed with HIST 5074. **Semester Hours:** 3 to 3

HIST 4075 - Travel Stories and Origins of Cultural Anthropology

Examines the early history of cultural anthropology by means of classic travel literature. Cross-listed with HIST 5075. **Semester Hours:** 3 to 3

HIST 4076 - History of Modern Science

Surveys the history of science from the 18th century to the present. Treats all disciplines, from physics to physiology, in an attempt to understand how the natural world came to dominate our sense of ourselves. Cross-listed with HIST 5076. **Semester Hours:** 3 to 3

HIST 4082 - Reform and Revolution in Russia: The 1860s to 1917

Emphasis upon Russia's attempts to modernize, beginning with great reforms of the 1860s and 1870s; increasing polarization of government and opposition groups. Examines governmental point of view through several monographs and revolutionary theory, including those of Marx, Engels, Lenin and Trotsky. Cross-listed with HIST 5082. **Semester Hours:** 3 to 3

HIST 4083 - Russia Since 1917

Studies the development of the Soviet Union from its formation in the October Revolution, through the Civil War, the new economic policy, industrialization, collectivism, the Stalinist purges, up to the present. Cross-listed with HIST 5083. **Semester Hours:** 3 to 3

HIST 4086 - Eastern Europe

Studies the countries of Eastern Europe from their origins in the Middle Ages to the present. Cross-listed with HIST 5086. **Semester Hours:** 3 to 3

HIST 4133 - Management of Material Culture and Museum Collections

This course provides in-depth knowledge of the rudiments of material culture documentation, preservation and management. While we have designed this class for those interested in working in history museums, this is also appropriate for those students who want to learn the place of artifacts in studying history. Cross-listed with HIST 5133. **Semester Hours:** 3 to 3

HIST 4201 - Core Themes in U.S. History

This course surveys major themes in U.S. history. Cross-listed with HIST 5201. **Semester Hours:** 3 to 3

HIST 4210 - The American Revolution

The crisis of the British Empire in North America from the end of the French and Indian War to the ratification of the American Constitution. Topics include the emerging economy, constitutional arguments against Britain, the conduct of the war, and the definition of a republic. Cross-listed with HIST 5210. **Semester Hours:** 3 to 3

HIST 4212 - Civil War and Reconstruction

Begins with the causes and outbreak of the American Civil War, describes the military conflict and the social aspects of the war, examines the federal efforts to reconstruct the southern states, and protect the rights of Black citizens after 1865. Cross-listed with HIST 5212. **Semester Hours:** 3 to 3

HIST 4213 - The Gilded Age and Early 20th Century Challenges: U.S. History, 1865-1932

Topical study of major events in America, including Reconstruction; the rise of industry and the workers' response; westward expansion and the plight of Native Americans; urbanization and immigration; agrarian upheaval; Progressivism; World War I; the challenges of the 1920s and the onset of the Great Depression. Cross-listed with HIST 5213. **Semester Hours:** 3 to 3

HIST 4216 - History of American Popular Culture

Explores the evolution of film, radio, television, and popular music from the 1940s to the 1980s. The course uses these and other forms of popular art to examine American history in this era. The course focuses on the shifting trends in popular culture, how that culture reflects the larger themes in American history, and how these media have impacted the national experience. Cross-listed with HIST 5216. **Semester Hours:** 3 to 3

HIST 4217 - Consumer Culture

This interdisciplinary course examines the dynamics of the consumer culture in the context of social, economic, and technological history. The analysis begins with 17th century European origins, and continues through recent world developments, emphasizing the U.S. since 1800. Note: Open to all students. Cross-listed with HIST 5217. **Semester Hours:** 3 to 3

HIST 4219 - Depression, Affluence and Anxiety: U.S. History, 1929 to the Present

Examines major developments, focusing on the causes of the Depression and efforts to combat it; World War II and postwar readjustments; the Cold War and challenges of world leadership; unparalleled prosperity; Civil Rights movement; the Vietnam War; and economic uncertainties amidst general prosperity. Cross-listed with HIST 5219. **Semester Hours:** 3 to 3

HIST 4220 - U.S. Foreign Policy Since 1912

The main thrust is the emergence of the U.S. from isolation toward full-scale participation in the affairs of Europe and other areas. Special attention is given to U.S. intervention in two world wars, the Cold War, and the over extension of U.S. commitments since 1960. Cross-listed with HIST 5220. **Semester Hours:** 3 to 3

HIST 4222 - U.S. Society and Thought to 1860

Major topics include the evolution of Protestantism from Puritans to Transcendentalists; humanitarian reforms such as abolition, temperance, and women's rights; European influences on American thought; the effect of industrialization on the development of class society; and American nostalgia for agrarian life. Cross-listed with HIST 5222. **Semester Hours:** 3 to 3

HIST 4223 - U.S. Society and Thought Since 1860

Topical survey of the main currents of American thought and their impact upon society. Topics include American philosophy, literature (extensively), art, music, immigration and urbanization, technology, extremism of both left and right, and education. Cross-listed with HIST 5223.

Semester Hours: 3 to 3

HIST 4225 - Urban America: Colonial Times to the Present

Rise of the American city from colonial times to present. Major emphasis on the process of urbanization since 1840: town promotion, the industrial city, immigration, boss politics and reform, urban technology, transportation systems, minorities, city planning, and the future of urban America. Cross-listed with HIST 5225. **Semester Hours:** 3 to 3

HIST 4226 - U.S. Business History

Surveys the major changes in business practices from colonial times to the present. Primary emphasis is placed on the Industrial Revolution and after. Topics include the emergence of major personalities in the Industrial Revolution; the rise of giant corporations; the response of industrial labor unions; government intervention and regulations and the emergence of the post-industrial society. Cross-listed with HIST 5226. **Semester Hours:** 3 to 3

HIST 4227 - American West

Introduces the diverse peoples, places, and approaches to the development of the trans-Missouri West from prehistoric times to the present. Cross-listed with HIST 5227. **Semester Hours:** 3 to 3

HIST 4228 - Western Art and Architecture

Introduces art and architecture of the American West, emphasizing their historical context. Students are required to do book reports and a research paper. Course includes walking tours and museum visits. Cross-listed with HIST 5228. **Semester Hours:** 3 to 3

HIST 4229 - Colorado Historic Places

Introduces community architecture, folklore, and history for all students. Students learn how to survey, describe, and designate significant historical structures and districts. Cross-listed with HIST 5229. **Semester Hours:** 3 to 3

HIST 4230 - Women in the West

Focuses on ways in which women, from the mid-19th century through the mid-20th century, of different races, classes, and ethnic background, have interacted and been active participants in the development of the Western states. Cross-listed with HIST 5230 and WGST 4230/5230.

Semester Hours: 3 to 3

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This core course for the museum studies area of public history introduces students to the theory and practice of museum operations. It covers the basics of museum administration, museum collection and preservation, and museum interpretation from both theoretical and practical points of view. Cross-listed with HIST 5231. **Semester Hours:** 3 to 3

HIST 4232 - Historic Preservation

Introduces the history, methodology, and goals of historic preservation. Guest speakers, field trips, research projects, and book reports. Cross-listed with HIST 5232. **Semester Hours:** 3 to 3

HIST 4234 - Introduction to Public History

An overview of history outside the academic setting. Students have the opportunity to learn about jobs through on-site visits and presentations made by people engaged in a wide variety of occupations in history other than teaching. Cross-listed with HIST 5234. **Semester Hours:** 3 to 3

HIST 4235 - Sports and American Society

Examines American society and culture through the history of recreational and professional sport. Issues include class, race, gender, religion, business and politics. Cross-listed with HIST 5235. **Semester Hours:** 3 to 3

HIST 4236 - Colorado Mining and Railroads

Focuses on the transportation network that shaped the inland West, and its key role in the extractive industry that gave Colorado its start and nourished the highest state through adolescence. Cross-listed with HIST 5236. **Semester Hours:** 3 to 3

HIST 4238 - U.S. History Through Fiction

Explores American history through novels, based on the idea that fiction offers a superb "window" through which to view the past, especially to understand the texture of American society. Prereq: Upper division standing. Cross-listed with HIST 5238. **Semester Hours:** 3 to 3

HIST 4240 - National Parks History

Introduces how the National Park Service uses history to identify, designate, preserve, and interpret America's most outstanding historic and natural history sites. After tours of NPS sites, students select from a wide range of projects. Note: Open to all students. Cross-listed with HIST 5240. **Semester Hours:** 3 to 3

HIST 4242 - Oral History

Trains public history students in the collection of oral history interviews. Students master core readings on the theory, practice, and ethics of oral history. Cross-listed with HIST 5242. **Semester Hours:** 3 to 3

HIST 4243 - Public History Administration

Introduces students to the skills, practice, and ethics of public history administration. Cross-listed with HIST 5243. **Semester Hours:** 3 to 3

HIST 4244 - Interpretation of History in Museums: Exhibits and Education

This course allows students to gain in-depth knowledge of historical interpretation through exhibits and education in a museum setting. This class is designed for those preparing to work

in history museums but is also appropriate for teachers and others who want to learn how museum programs interpret history with artifacts and other historical materials. Cross-listed with HIST 5244. **Semester Hours:** 3 to 3

HIST 4245 - Heritage Tourism

History and historic sites have become big business in 21st century tourism. The heritage tourism industry is explored in this introductory course for all interested students focusing on how academic history and historians can partner with tourism and recreation interests. Cross-listed with HIST 5245. **Semester Hours:** 3 to 3

HIST 4303 - Sex and Gender in Modern Britain

Examines modern British history by focusing on sex and gender as central aspects in people's lives. Considers the ways gender shapes the realms of politics, economics, society and culture in Britain from the 18th century to the present. Cross-listed with HIST 5303 and WGST 4303/5303. **Semester Hours:** 3 to 3

HIST 4306 - Survey of Feminist Thought

Examines changes and continuities in feminist thought from the 18th century to the present, using historical and literary materials. Explores the ways that women's characteristics, experiences, and capabilities have been understood and challenged. Cross-listed with ENGL 4306, 5306, HIST 5306, WGST 4306, 5306. **Semester Hours:** 3 to 3

HIST 4307 - History of Sexuality

Explores the relationships between gender and norms, sexual practice, and ideas about sexuality in Europe and the United States. Examines how sex and sexuality have changed over time and how those changes relate to social, cultural, political and economic history. Cross-listed with HIST 5307 and WGST 4307/5307. **Semester Hours:** 3 to 3

HIST 4308 - Crime, Policing, and Justice in American History

Focuses on changing legal and cultural definitions of crime, the role of the police, the evolution of punishment in theory and practice, and the role of mass culture in shaping the social history of crime and justice. Cross-listed with HIST 5308. **Semester Hours:** 3 to 3

HIST 4345 - Gender, Science, and Medicine: 1600 to the Present

Examines the ways science and medicine have both shaped and been shaped by ideas about gender. Pays particular attention to the relationship between scientific/medical ideas about the sexes and the social organization of gender. Cross-listed with HIST 5345 and WGST 4345/5345. **Semester Hours:** 3 to 3

HIST 4346 - Medicine and Society: the Ancients to the Present

Surveys change and continuity in definitions of health and illness, interactions between patients and practitioners, the practice of medical authority, and the relationships between science, clinical medicine, and the provision of health care. Cross-listed with HIST 5346. **Semester Hours:** 3 to 3

HIST 4347 - History of Biology

Examines the development of modern biology from the mid-18th century to the present. Students will look at intellectual, methodological, institutional and social contexts in an attempt to answer the question of how biology became the "pre-eminent" science **Semester Hours:** 3 to 3

HIST 4348 - Mind and Malady: A History of Mental Illness

Examines the history of mental illness from the mid-18th century to the present, focusing on the institutionalization of the mentally ill, the origin of psychiatry, the development of models of mental illness and the evolution of clinical treatment. Cross-listed with HIST 5418. **Semester Hours:** 3 to 3

HIST 4411 - Modern Mexico

Designed to familiarize students with the critical issues in Mexican political, economic and social history. Traces the emergence of independence and the difficult consolidation of an independent nation state. Cross-listed with HIST 5411, ETST 4411. **Semester Hours:** 3 to 3

HIST 4412 - Mexico and the United States: People and Politics on the Border

Examines the convoluted relations between these two republics, focusing on diplomatic, cultural, and social interactions. Cross-listed with HIST 5412. **Semester Hours:** 3 to 3

HIST 4414 - Nationalism and State Building in Latin America, 1750-1850

Explores the problems of nationalism and post-colonial state building by examining the late colonial and early national periods of Latin American history. The course discusses the impact of the enlightenment, the events of the Wars of Independence, and the quandaries faced by the new nations. Cross-listed with HIST 5414. **Semester Hours:** 3 to 3

HIST 4415 - Social Revolutions in Latin America

A theoretical framework and an empirical basis for understanding the large-scale social movements that have influenced the course of Latin American nations. Cross-listed with HIST 5415. **Semester Hours:** 3 to 3

HIST 4416 - The Age of Imperialism

Examines causes, character, and consequences of imperialism in the industrial era (ca. 1840-1975). Through intense study of selected cases, students gain an understanding of the different dynamics and varieties of imperialist control. **Semester Hours:** 3 to 3

HIST 4417 - Commodities and Globalization: Dessert in World History

Traces the impact of "dessert commodities" (sugar, cacao, vanilla and coffee) on Latin America during an early period of globalization (nineteenth century). Explores cultural shifts in North Atlantic countries that created the incessant demand for dessert. Prereq: Senior or graduate student standing. Cross-listed with HIST 5417. **Semester Hours:** 3 to 3

HIST 4418 - Trade and Premodern World History

Explores the interconnections that shaped premodern world history, considering the ways that the production, exchange, and consumption of cloth were tied to specific forms of political

power, social and religious organization, and long distance economic relationships. Cross-listed with HIST 5418. **Semester Hours:** 3 to 3

HIST 4420 - Traditional China: China to 1600

A general introduction to the history of China from the advent of historic civilization to the point of the great encounter with the West. Cross-listed with HIST 5420. **Semester Hours:** 3 to 3

HIST 4421 - Modern China

Surveys Chinese history in the modern era. Includes examination of Western domination of China; revolution and internal fragmentation of China; Japanese attacks and World War II; and civil war and the communist revolution. Cross-listed with HIST 5421. **Semester Hours:** 3 to 3

HIST 4422 - Living through Mao's China: Life, Material Culture, Movies, 1949-76

Introduces students to ordinary people's daily life in Mao's China (1949-1976) through an exploration of material culture, movies and scholarship. This course pays particular attention to the ways people's everyday living intertwined with politics. Cross-listed with HIST 5422. **Semester Hours:** 3 to 3

HIST 4431 - Modern Japan

Course of Japanese history since the Perry expedition. Covers Japanese Westernization and industrialization, the expansion of empire and defeat in World War II, the occupation, and the amazing technological and social transformation since the occupation years. Cross-listed with HIST 5431. **Semester Hours:** 3 to 3

HIST 4451 - Southern Africa

An in-depth history of the clash of peoples and cultures in Africa south of the Zambezi River. African and Afrikaner political, economic and cultural development in a single land and the consequences of several competing nationalisms existing side by side are examined. Apartheid and African opposition to it are analyzed. Cross-listed with HIST 5451. **Semester Hours:** 3 to 3

HIST 4455 - African Struggle for Independence

An assessment of African leadership from the colonial era to the present. Cross-listed with HIST 5455. **Semester Hours:** 3 to 3

HIST 4460 - The Islamic World's Golden Age

The Islamic world's golden age before European expansion was characterized by sophisticated business institutions, scholarship, new technologies, and art. This class asks: What roles did Islam play in connecting diverse societies across broad regions? What characterized these territories? Cross-listed with HIST 5460. **Semester Hours:** 3 to 3

HIST 4461 - The Modern Middle East

Cross-listed with HIST 5461. **Semester Hours:** 3 to 3

HIST 4471 - The Second World War

The War in its totality: causes, military strategies (equal treatment to European and Pacific theaters), campaigns, impact of technology and weapons, political and social upheaval. Cross-listed with HIST 5471. **Semester Hours:** 3 to 3

HIST 4472 - The 1950s: Korean War, the Cold War and Social Transformation

A critical and methodical exploration of several of the social, cultural, and political events of the 1950s. Investigates the complex interaction between politics and culture during this decade, paying close attention to anti-Communist thought and the Korean War. Cross-listed with HIST 5472. **Semester Hours:** 3 to 3

HIST 4475 - The Vietnam War

Covers the conflict in Vietnam, with roots in the period prior to World War II. Main topics include the rise of nationalism in French Indochina, the war against the French, the Northern move to unify Vietnam, American intervention, and eventual victory of the Northern regime. Cross-listed with HIST 5475. **Semester Hours:** 3 to 3

HIST 4501 - World History for Educators

Introduces world history for candidates for teaching positions. Discussion of themes, problems of research and interpretation, and relevant instructional methods. Prereq: Upper division standing. Cross-listed with HIST 5501. **Semester Hours:** 3 to 3

HIST 4503 - Topics in History of Science

Themes vary from year to year. Possible topics: Darwinism, Nature of Memory, Time and Space, Origins. Cross-listed with HIST 5503. **Semester Hours:** 3 to 3

HIST 4504 - Animals in U.S. History

Human-animal relationships offer powerful and unexpected perspectives on the American past. An eclectic range of readings and viewings, written assignments and contemplative experiences will contextualize contemporary practices, beliefs, and ethics -- vegetarianism, hunting, pet-keeping, and many others -- in historical context. Cross-listed with HIST 5504. **Semester Hours:** 3 to 3

HIST 4621 - Explorers and Exploration

Examines the history of travel and exploration from the 13th century to the present. Readings draw primarily from first-person accounts to understand why people voyage, what they hope to discover, and what happens to them along the way. Cross-listed with HIST 5621. **Semester Hours:** 3 to 3

HIST 4622 - Oceans In History

Explores emerging historical scholarship of transoceanic exchanges, relations, and transformations in early modern world history. Examines how historians analyze and conceptualize global interactions. Topics include voluntary and forced migrations, resistance and revolution, transoceanic economic relations, piracy, and environmental change. Cross-listed with HIST 5622. **Semester Hours:** 3 to 3

HIST 4645 - Archival Management

This course studies theory and principles pertaining to the management of current and non-current records, public and private archival materials, as well as the administration of archival manuscript depositories for housing records of historical value. Cross-listed with HIST 5645.

Semester Hours: 3 to 3

HIST 4810 - Special Topics

Cross-listed with HIST 5810. **Semester Hours:** 1 to 3

HIST 4839 - History Seminar

Covers the use of documentary sources and historical criticism, with students utilizing these skills in a historical research paper. Note: Required for history majors. Preferably taken in the senior year. Prereq: HIST 3031. **Semester Hours:** 3 to 3

HIST 4840 - Independent Study: HIST

Semester Hours: 1 to 3

HIST 4849 - Independent Study History Honors Research Paper

Students competing for history honors must take this course to prepare their honors paper. The course requires students to produce a finished research paper of professional quality under the direction of a history faculty member. Prereq: Open to advanced history majors only. **Semester Hours:** 3 to 3

HIST 4850 - History in the Community: History Day Mentoring

Under direction of UCD history faculty, students participate in the Denver Public Schools National History Day program. They gain teaching experience by mentoring DPS students in preparation of History Day projects, and may also participate in judging local and state History Day contests. Prereq: Permission of department chair. **Semester Hours:** 1 to 3

HIST 5027 - Enlightenment and Revolution

In this course students explore the relationship of ideas and events in Europe during the 17th and 18th centuries. Modernizing trends in the European economy, religion, science, states and international affairs leading up to the French Revolution. Cross-listed with HIST 4027.

Semester Hours: 3 to 3

HIST 5028 - Nations and Classes: 19th Century Europe

Focuses on material and ideological changes in 19th century Europe, exploring social, cultural, political, economic, and intellectual developments. Cross-listed with HIST 4028. **Semester**

Hours: 3 to 3

HIST 5029 - Age of Anxiety in Europe

Looks at Europe at the end of the nineteenth century in an effort to determine if there is any relation between the peculiarities in culture at the time and the horrors in politics that followed.

Cross-listed with HIST 4029. **Semester Hours:** 3 to 3

HIST 5030 - Europe During the World Wars

Covers the history of the two world wars and their origins, political and social upheaval during the interwar economic crisis, the rise of communism, Italian fascism and Nazism, with an emphasis on cultural production and intellectual life. Cross-listed with HIST 4030. **Semester Hours:** 3 to 3

HIST 5031 - Contemporary Europe

History of Europe since 1945. Students study the economic, social, and political history of Europe since World War II, with a special emphasis on the Cold War and intellectual currents. Cross-listed with HIST 4031. **Semester Hours:** 3 to 3

HIST 5032 - Globalization in World History Since 1945

An interdisciplinary course on contemporary world history and globalization. While the course is historically structured, economic, political, and sociological matters are explored. Cross-listed with HIST 4032. **Semester Hours:** 3 to 3

HIST 5034 - Core Themes in European History

Core themes in modern Europe, 1750 to the present. Cross-listed with HIST 4034. **Semester Hours:** 3 to 3

HIST 5035 - Crisis and Transformation: Europe's 20th Century

This course examines 20th century European history focusing on themes of crisis and transformation. We will explore how devastating wars, economic depression, stark ideological divisions, and revolutionary social, political and cultural movements dramatically changed Europe over the course of the century. Cross-listed with HIST 4035. **Semester Hours:** 3 to 3

HIST 5046 - Victorians and Victorianism

Taking an interdisciplinary perspective, this course examines English people and English life during the reign of Queen Victoria, 1837-1901. What were the defining features of the Victorian age? What did it mean to be "Victorian?" When and why did the Victorian paradigm break down? Cross-listed with HIST 4046. **Semester Hours:** 3 to 3

HIST 5051 - Britain and The Empire

Examines 19th and 20th century British history, addressing social, cultural, and political themes. Explores industrialization, state growth, and imperialism; relationships between race, gender, and class; and the ways in which colonizers and the colonized experienced empire. Cross-listed with HIST 4051. **Semester Hours:** 3 to 3

HIST 5055 - The Atlantic Slave Trade: Africa, Caribbean and U.S.

Presents a broad overview of the slave trade in the Atlantic World, including discussion of the slave plantation, the creation of Caribbean societies and the consequences of independence from Britain. Cross-listed with HIST 4055. **Semester Hours:** 3 to 3

HIST 5062 - Modern France: 1789 to the Present

Considers the shaping of modern France from the 18th century Bourbon Monarchy and aristocratic society to today's liberal democracy, in which multiculturalism, globalization and supranational institutions call into question the very nature of French identity. Cross-listed with HIST 4062. **Semester Hours:** 3 to 3

HIST 5071 - Modern Germany

Surveys the major political, institutional, social, economic, and cultural developments that have occurred in Germany since the late 18th century. Cross-listed with HIST 4071. **Semester Hours:** 3 to 3

HIST 5074 - Post-War Germany

Historical survey of Germany since the second world war, with an emphasis on culture and society. Cross-listed with HIST 4074. **Semester Hours:** 3 to 3

HIST 5075 - Travel Stories and Origins of Cultural Anthropology

Examines the early history of cultural anthropology by means of classic travel literature. Cross-listed with HIST 4075. **Semester Hours:** 3 to 3

HIST 5076 - History of Modern Science

Surveys the history of science from the 18th century to the present. Treats all disciplines, from physics to physiology, in an attempt to understand how the natural world came to dominate our sense of ourselves. Cross-listed with HIST 4076. **Semester Hours:** 3 to 3

HIST 5082 - Reform and Revolution in Russia: The 1860s to 1917

Emphasis upon Russia's attempts to modernize, beginning with great reforms of the 1860s and 1870s; increasing polarization of government and opposition groups. Examines governmental point of view through several monographs and revolutionary theory, including those of Marx, Engels, Lenin and Trotsky. Cross-listed with HIST 4082. **Semester Hours:** 3 to 3

HIST 5083 - Russia Since 1917

Studies the development of the Soviet Union from its formation in the October Revolution, through the Civil War, the new economic policy, industrialization, collectivism, the Stalinist purges, up to the present. Cross-listed with HIST 4083. **Semester Hours:** 3 to 3

HIST 5086 - Eastern Europe

Studies the countries of Eastern Europe from their origins in the Middle Ages to the present. Cross-listed with HIST 4086. **Semester Hours:** 3 to 3

HIST 5133 - Management of Material Culture and Museum Collections

This course provides in-depth knowledge of the rudiments of material culture documentation, preservation and management. While we have designed this class for those interested in working in history museums, this is also appropriate for those students who want to learn the place of artifacts in studying history. Cross-listed with HIST 4133. **Semester Hours:** 3 to 3

HIST 5201 - Core Themes in U.S. History

This course surveys major themes in U.S. history. Cross-listed with HIST 4201. **Semester Hours:** 3 to 3

HIST 5210 - The American Revolution

The crisis of the British Empire in North America from the end of the French and Indian War to the ratification of the American Constitution. Topics include the emerging economy, constitutional arguments against Britain, the conduct of the war, and the definition of a republic. Cross-listed with HIST 4210. **Semester Hours:** 3 to 3

HIST 5212 - Civil War and Reconstruction

Begins with the causes and outbreak of the American Civil War, describes the military conflict and the social aspects of the war, and examines the federal efforts to reconstruct the southern states and protect the rights of Black citizens after 1865. Cross-listed with HIST 4212.

Semester Hours: 3 to 3

HIST 5213 - The Gilded Age and Early 20th Century Challenges: U.S. History, 1865-1932

Topical study of major events in America, including Reconstruction; the rise of industry and the workers' response; westward expansion and the plight of Native Americans; urbanization and immigration; agrarian upheaval; Progressivism; World War I; the challenges of the 1920s and the onset of the Great Depression. Cross-listed with HIST 4213. **Semester Hours:** 3 to 3

HIST 5216 - History of American Popular Culture

Explores the evolution of film, radio, television, and popular music from the 1940s to the 1980s. The course uses these and other forms of popular art to examine American history in this era. The course focuses on the shifting trends in popular culture, how that culture reflects the larger themes in American history, and how these media have impacted the national experience. Cross-listed with HIST 4216. **Semester Hours:** 3 to 3

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HIST 5219 - Depression, Affluence and Anxiety: U.S. History, 1929 to the Present

Examines major developments, focusing on the causes of the Depression and efforts to combat it; World War II and postwar readjustments; the Cold War and challenges of world leadership; unparalleled prosperity; Civil Rights movement; the Vietnam War; and economic uncertainties amid general prosperity. Cross-listed with HIST 4219. **Semester Hours:** 3 to 3

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Major topics include the evolution of Protestantism from Puritans to Transcendentalists; humanitarian reforms such as abolition, temperance, and women's rights; European influences on American thought; the effect of industrialization on the development of class society; and American nostalgia for agrarian life. Cross-listed with HIST 4222. **Semester Hours:** 3 to 3

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Rise of the American city from colonial times to present. Major emphasis on the process of urbanization since 1840: town promotion, the industrial city, immigration, boss politics and reform, urban technology, transportation systems, minorities, city planning, and the future of urban America. Cross-listed with HIST 4225. **Semester Hours:** 3 to 3

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HIST 5227 - American West

Introduces the diverse peoples, places, and approaches to the development of the trans-Missouri West from prehistoric times to the present. Cross-listed with HIST 4227. **Semester Hours:** 3 to 3

HIST 5228 - Western Art and Architecture

Introduces Western art and architecture, emphasizing their historical context. Students are required to do book reports and a major research paper. Course includes walking tours and museum visits. Cross-listed with HIST 4228. **Semester Hours:** 3 to 3

HIST 5229 - Colorado Historic Places

Introduces community architecture, folklore, and history for all students. Students learn how to survey, describe, and designate significant historical structures and districts. Cross-listed with HIST 4229. **Semester Hours:** 3 to 3

HIST 5230 - Women in the West

Focuses on ways in which women, from the mid-19th century through the mid-20th century, of different races, classes, and ethnic background, have interacted and been active participants in the development of the Western states. Cross-listed with HIST 4230 and WGST 4230/5230.

Semester Hours: 3 to 3

HIST 5231 - History in Museums

This core course for the museum studies area of public history introduces students to the theory and practice of museum operations. It covers the basics of museum administration, museum collection and preservation, and museum interpretation from both theoretical and practical points of view. Cross-listed with HIST 4231. **Semester Hours:** 3 to 3

HIST 5232 - Historic Preservation

Introduces the history, methodology, and goals of historic preservation. Guest speakers, field trips, research projects, and book reports. Cross-listed with HIST 4232. **Semester Hours:** 3 to 3

HIST 5234 - Introduction to Public History

An overview of history outside the academic setting. Students have the opportunity to learn about jobs through on-site visits and presentations made by people engaged in a wide variety of occupations in history other than teaching. Cross-listed with HIST 4234. **Semester Hours:** 3 to 3

HIST 5235 - Sports and American Society

Examines American society and culture through the history of recreational and professional sport. Issues include class, race, gender, religion, business and politics. Cross-listed with HIST 4235. **Semester Hours:** 3 to 3

HIST 5236 - Colorado Mining and Railroads

Focuses on the transportation network that shaped the inland West, and its key role in the extractive industry that gave Colorado its start and nourished the highest state through adolescence. Cross-listed with HIST 4236. **Semester Hours:** 3 to 3

HIST 5238 - U.S. History Through Fiction

Explores American history through novels, based on the idea that fiction offers a superb "window" through which to view the past, especially to understand the texture of American society. Cross-listed with HIST 4238. **Semester Hours:** 3 to 3

HIST 5240 - National Parks History

Introduces how the National Park Service uses history to identify, designate, preserve, and interpret America's most outstanding historic and natural history sites. After tours of NPS sites, students select from a wide range of projects. Note: Open to all students. Cross-listed with HIST 4240. **Semester Hours:** 3 to 3

HIST 5242 - Oral History

Trains public history students in the collection of oral history interviews. Students master core readings on the theory, practice, and ethics of oral history. Cross-listed with HIST 4242.

Semester Hours: 3 to 3

HIST 5243 - Public History Administration

Introduces students to the skills, practice, and ethics of public history administration. Cross-listed with HIST 4243. **Semester Hours:** 3 to 3

HIST 5244 - Interpretation of History in Museums: Exhibits and Education

This course allows students to gain in-depth knowledge of historical interpretation through exhibits and education in a museum setting. This class is designed for those preparing to work in history museums but is also appropriate for teachers and others who want to learn how museum programs interpret history with artifacts and other historical materials. Cross-listed with HIST 4244. **Semester Hours:** 3 to 3

HIST 5245 - Heritage Tourism

History and historic sites have become big business in 21st century tourism. The heritage tourism industry is explored in this introductory course for all interested students focusing on how academic history and historians can partner with tourism and recreation interests. Cross-listed with HIST 4245. **Semester Hours:** 3 to 3

HIST 5303 - Sex and Gender in Modern Britain

Examines modern British history by focusing on sex and gender as central aspects in people's lives. Considers the ways gender shapes the realms of politics, economics, society and culture in Britain from the 18th century to the present. Cross-listed with HIST 4303 and WGST 4303/5303. **Semester Hours:** 3 to 3

HIST 5306 - Survey of Feminist Thought

Examines changes and continuities in feminist thought from the 18th century to the present, using historical and literary materials. Explores the ways that women's characteristics, experiences, and capabilities have been understood and challenged. Cross-listed with ENGL 4306, 5306, HIST 4306, WGST 4306, 5306. **Semester Hours:** 3 to 3

HIST 5307 - History of Sexuality

Explores the relationships between gender and norms, sexual practice, and ideas about sexuality in Europe and the United States. Examines how sex and sexuality have changed over time and how those changes relate to social, cultural, political and economic history. Cross-listed with HIST 4307 and WGST 4307/5307. **Semester Hours:** 3 to 3

HIST 5308 - Crime, Policing, and Justice in American History

Focuses on changing legal and cultural definitions of crime, the role of the police, the evolution of punishment in theory and practice, and the role of mass culture in shaping the social history of crime and justice. Cross-listed with HIST 4308. **Semester Hours:** 3 to 3

HIST 5345 - Gender, Science, and Medicine: 1600 to the Present

Examines the ways science and medicine have both shaped and been shaped by ideas about gender. Pays particular attention to the relationship between scientific/medical ideas about the sexes and the social organization of gender. Cross-listed with HIST 4345 and WGST 4345/5345.

Semester Hours: 3 to 3

HIST 5346 - Medicine and Society: the Ancients to the Present

Surveys change and continuity in definitions of health and illness, interactions between patients and practitioners, the practice of medical authority, and the relationships between science, clinical medicine, and the provision of health care. Cross-listed with HIST 4346.

Semester Hours: 3 to 3

HIST 5347 - History of Biology

Examines the development of modern biology from the mid-18th century to the present.

Students will look at intellectual, methodological, institutional and social contexts in an attempt to answer the question of how biology became the "pre-eminent" science **Semester Hours:** 3 to 3

HIST 5348 - Mind and Malady: A History of Mental Illness

Examines the history of mental illness from the mid-18th century to the present, focusing on the institutionalization of the mentally ill, the origin of psychiatry, the development of models of mental illness and the evolution of clinical treatment. Cross-listed with HIST 4348.

Semester Hours: 3 to 3

HIST 5411 - Modern Mexico

Designed to familiarize students with the critical issues in Mexican political, economic and social history. Traces the emergence of independence and the difficult consolidation of an independent nation state. Cross-listed with HIST 4411, ETST 4411.

Semester Hours: 3 to 3

HIST 5412 - Mexico and the United States: People and Politics on the Border

Examines the convoluted relations between these two republics, focusing on diplomatic, cultural and social interactions. Cross-listed with HIST 4412.

Semester Hours: 3 to 3

HIST 5414 - Nationalism and State Building in Latin America, 1750-1850

Explores the problems of nationalism and post-colonial state building by examining the late colonial and early national periods of Latin American history. The course discusses the impact of the enlightenment, the events of the Wars of Independence, and the quandaries faced by the new nations. Cross-listed with HIST 4414.

Semester Hours: 3 to 3

HIST 5415 - Social Revolutions in Latin America

A theoretical framework and an empirical basis for understanding the large-scale social movements that have influenced the course of Latin American nations. Cross-listed with HIST 4415.

Semester Hours: 3 to 3

HIST 5417 - Commodities and Globalization: Dessert in World History

Traces the impact of "dessert commodities" (sugar, cacao, vanilla and coffee) on Latin America during an early period of globalization (nineteenth century). Explores cultural shifts in North Atlantic countries that created the incessant demand for dessert. Prereq: Senior or graduate student standing. Cross-listed with HIST 4417. **Semester Hours:** 3 to 3

HIST 5418 - Trade and Premodern Wrld Hstry

Explores the interconnections that shaped premodern world history, considering the ways that the production, exchange, and consumption of cloth were tied to specific forms of political power, social and religious organization, and long distance economic relationships. Cross-listed with HIST 4418. **Semester Hours:** 3 to 3

HIST 5420 - Traditional China: China to 1600

A general introduction to the history of China from the advent of historic civilization to the point of the great encounter with the West. Cross-listed with HIST 4420. **Semester Hours:** 3 to 3

HIST 5421 - Modern China

Surveys Chinese history in the modern era. Includes examination of Western domination of China, revolution, and internal fragmentation of China; Japanese attacks and World War II; and civil war and the communist revolution. Cross-listed with HIST 4421. **Semester Hours:** 3 to 3

HIST 5422 - Lvng thr Mao's China: Life, Mat. Cult, Movies, 1949-76

Introduces students to ordinary people's daily life in Mao's China (1949-1976) through an exploration of material culture, movies and scholarship. This course pays particular attention to the ways people's everyday living intertwined with politics. Cros **Semester Hours:** 3 to 3

HIST 5431 - Modern Japan

Course of Japanese history since the Perry expedition. Covers Japanese Westernization and industrialization, the expansion of empire and defeat in World War II, the occupation, and the amazing technological and social transformation since the occupation years. Cross-listed with HIST 4431. **Semester Hours:** 3 to 3

HIST 5451 - Southern Africa

An in-depth history of the clash of peoples and cultures in Africa south of the Zambezi River. African and Afrikaner political, economic and cultural development in a single land and the consequences of several competing nationalisms existing side by side are examined. Apartheid and African opposition to it are analyzed. Cross-listed with HIST 4451. **Semester Hours:** 3 to 3

HIST 5455 - African Struggle for Independence

An assessment of African leadership from the colonial era to the present. Cross-listed with HIST 4455. **Semester Hours:** 3 to 3

HIST 5460 - The Islamic World's Golden Age

The Islamic world's golden age before European expansion was characterized by sophisticated business institutions, scholarship, new technologies, and art. This class asks: What roles did Islam play in connecting diverse societies across broad regions? What characterized these territories? Cross-listed with HIST 4460. **Semester Hours:** 3 to 3

HIST 5461 - The Modern Middle East

Cross-listed with HIST 4461. **Semester Hours:** 3 to 3

HIST 5464 - Problems and Methods in Teaching History and Social Studies I

Introduces students to problems and methods in secondary education history and social studies teaching. This course focuses primarily on the teaching of history. Note: Open to students in the Initial Professional Teacher Education program or a relevant graduate program, and to practicing teachers. **Semester Hours:** 3 to 3

HIST 5465 - Problems and Methods in Teaching History and Social Studies II

Introduces students to problems and methods in secondary education history and social studies teaching. This course focuses broadly on the teaching of all the social studies fields, including history, economics, government, and geography. Note: Open to students in the Initial Professional Teacher Education program or a relevant graduate program, and to practicing teachers. Prereq: HIST 5464. **Semester Hours:** 3 to 3

HIST 5466 - Teaching About Ethnicity, Race, and Prejudice

Examines the history of ethnic identity and race relations in North America and applies that knowledge to teaching practices. Questions how teachers should approach the topics of race, ethnicity, and discrimination in our collective history and society. **Semester Hours:** 3 to 3

HIST 5471 - The Second World War

The war in its totality: causes, military strategies (equal treatment to European and Pacific theaters), campaigns, impact of technology and weapons, political and social upheaval. Cross-listed with HIST 4471. **Semester Hours:** 3 to 3

HIST 5472 - The 1950s: Korean War, the Cold War and Social Transformation

A critical and methodical exploration of several of the social, cultural, and political events of the 1950s. Investigates the complex interaction between politics and culture during this decade, paying close attention to anti-Communist thought and the Korean War. Cross-listed with HIST 4472. **Semester Hours:** 3 to 3

HIST 5475 - The Vietnam War

Covers the conflict in Vietnam, with roots in the period prior to World War II. Main topics include the rise of nationalism in French Indochina, the war against the French, the Northern moves to unify Vietnam, American intervention, and eventual victory of the Northern regime. Cross-listed with HIST 4475. **Semester Hours:** 3 to 3

HIST 5501 - World History for Educators

Introduces world history for candidates for teaching positions. Discussion of themes, problems of research and interpretation, and relevant instructional methods. Prereq: Upper division standing. Cross-listed with HIST 4501. **Semester Hours:** 3 to 3

HIST 5502 - World History For Educators Workshops

Designed for world history teachers who wish to enhance their knowledge of world history content and pedagogy. If taken in total, the course is comparable to a college survey course in world history plus teaching guides. **Semester Hours:** 1 to 1

HIST 5503 - Topics in History of Science

Themes vary from year to year. Possible topics: Darwinism, Nature of Memory, Time and Space, Origins. Cross-listed with HIST 4503. **Semester Hours:** 3 to 3

HIST 5504 - Animals in U.S. History

Human-animal relationships offer powerful and unexpected perspectives on the American past. An eclectic range of readings and viewings, written assignments and contemplative experiences will contextualize contemporary practices, beliefs, and ethics -- vegetarianism, hunting, pet-keeping, and many others -- in historical context. Cross-listed with HIST 4504. **Semester Hours:** 3 to 3

HIST 5621 - Explorers and Exploration

Examines the history of travel and exploration from the 13th century to the present. Readings draw primarily from first-person accounts to understand why people voyage, what they hope to discover, and what happens to them along the way. Cross-listed with HIST 4621. **Semester Hours:** 3 to 3

HIST 5622 - Oceans In History

Explores emerging historical scholarship of transoceanic exchanges, relations, and transformations in early modern world history. Examines how historians analyze and conceptualize global interactions. Topics include voluntary and forced migrations, resistance and revolution, transoceanic economic relations, piracy, and environmental change. Cross-listed with HIST 4622. **Semester Hours:** 3 to 3

HIST 5645 - Archival Management

This course studies theory and principles pertaining to the management of current and non-current records, public and private archival materials, as well as the administration of archival manuscript depositories for housing records of historical value. Cross-listed with HIST 4645. **Semester Hours:** 3 to 3

HIST 5810 - Special Topics

Cross-listed with HIST 4810. **Semester Hours:** 1 to 3

HIST 5840 - Independent Study: History

Semester Hours: 1 to 3

HIST 5939 - Internship

Semester Hours: 1 to 6

HIST 5995 - Travel Study

Created for students doing travel study in a foreign country; register through the Office of International Education. **Semester Hours:** 1 to 15

HIST 6013 - Introduction to the Professional Study of History

Semester Hours: 3 to 3

HIST 6840 - Independent Study: HIST

Semester Hours: 1 to 3

HIST 6920 - Readings in European History

Semester Hours: 3 to 3

HIST 6925 - Readings in Early U.S. History

Semester Hours: 3 to 3

HIST 6926 - Readings in Later U.S. History, 1865-1932

Semester Hours: 3 to 3

HIST 6927 - Readings in Public History

Semester Hours: 3 to 3

HIST 6929 - Readings in Later U.S. History, 1929 to the Present

Semester Hours: 3 to 3

HIST 6931 - Readings: Special Subjects in History

Readings in topics in history with varying subtitles reflecting course content. Prereq: Graduate standing. **Semester Hours:** 3 to 3

HIST 6939 - Internship

Semester Hours: 1 to 6

HIST 6950 - Master's Thesis

Semester Hours: 1 to 6

HIST 6951 - Masters Project: Advanced History Curriculum Development

Students develop curricula for secondary-level history courses; must demonstrate thorough knowledge of subjects; understanding of historiographic and methodological problems; command of primary sources and their uses in teaching; and describe teaching strategies, methods, and assessments to be used in the curricula. Prereq: Permission of instructor.

Semester Hours: 1 to 6

HIST 6952 - Master's Project: Public History

Public history majors may use three credits to complete a public history project. Projects can entail creating an exhibit, organizing a museum or archival collection, conducting a preservation survey, or similar activities. Students are required to prepare a paper describing the process and results of their project. **Semester Hours:** 3 to 3

HIST 6980 - Seminar in European History

Semester Hours: 3 to 3

HIST 6981 - Seminar in British History

Semester Hours: 3 to 3

HIST 6986 - Seminar in Later U.S. History

Semester Hours: 3 to 3

HIST 6989 - Seminar: Special Subjects in History

Semester Hours: 3 to 3

HIST 6992 - Seminar: Colorado Studies

This advanced interdisciplinary seminar on Colorado starts with a survey of the published literature. Students then select a research topic of their own and complete a publishable paper using primary sources. **Semester Hours:** 3 to 3

HIST 6993 - Seminar: History of Technology

Explores American and worldwide cases, modern and pre-modern, of technological development through seminar readings and individual research. Considers how technologies evolve within historical contexts and how societies demonstrate values and beliefs as they manipulate nature, building lifestyles and social orders. **Semester Hours:** 3 to 3

Health Administration Courses (HLTH)

HLTH 6010 - Health Care Systems

Introduces the structure and function of the medical care delivery system. Includes basic concepts and measures of health, disease, quality, values, needs and utilization; issues in health care manpower, institutions and system organization; general issues in policy, reimbursement and regulation; broad community, and organizational considerations in medical care organizations. The student is introduced to the principles of epidemiology and environmental health and demonstrates the application of epidemiology concepts to planning for the healthcare service needs of a population. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

HLTH 6040 - Health Care Financial Management

Theory of insurance applied to healthcare, including benefits design and co-payments. Existing and proposed competition in insurance markets, including rating methodologies and selection issues. Managed care and medical spending accounts as responses to problems with traditional insurance. Managerial accounting methods useful for analyzing contracts and managing profitability are presented. Prereq: BUSN 6550 and 6621 or permission of instructor. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

HLTH 6055 - Transformational Leadership/Transforming Organizations

Focuses on the manager's ability to generate transformational changes within the organization. In order to heal the organization, the manager must become a transformational leader, skilled in metaphysical as well as traditional management skills. Transfor **Semester Hours:** 3 to 3 **When Offered:** *FALL*

HLTH 6070 - International Health Policy and Management

A framework for understanding national health reform policy and management issues in the U.S. and other nations, including industrialized, developing, and transforming nations. This course combines classroom and on-line teaching. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

HLTH 6071 - Introduction To Health Information Technology

Examines what needs transforming in healthcare to improve value, safety, and appropriateness of care, and what the role of IT is in that transformation. IT also examines the challenges of cultural change and IT strategy in succeeding with clinical information projects. Differences between installation, implementation, transition and actual transformation are suggested, and methods for managing subcultures in healthcare (IT, clinical, administrative) are reviewed. Cross-listed with ISMG 6071. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

HLTH 6072 - Fundamentals of Health Information Technology Management

Provides an introduction to the management of information technology in healthcare. A description of information processing, the origin, content, evolution of healthcare information systems, and the methodologies deployed to acquire and manage information requirements are discussed. Cross-listed with ISMG 6072. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

HLTH 6075 - International Health Travel Study

Experiential course, which is designed to open students up to innovative health delivery practices in an international location. Students learn how health issues such as reproductive health, infectious diseases, mental health, health and economy, and chronic diseases are handled in community and public health settings. Class trips are usually 14-18 days to an Asian country during the month of January. Prereq: HLTH 6010 or permission of instructor.

Semester Hours: 3 to 3

HLTH 6740 - Profiles in Health Care

This colloquium provides a rare opportunity for students to interact with top CEOs from health care organizations around the country. Students learn about HMOs, hospitals, medical group practices, consulting, managing careers, how to get jobs, and how to be successful in a job.

Semester Hours: 3 to 3 **When Offered:** *SPRING*

HLTH 6800 - Special Topics

Offered irregularly. Current interests in the health management field. Topics recently offered include: international health, ethics, general systems theory, and key issues for health systems. Consult the current 'Schedule Planner' for semester offerings. Prerequisites vary according to topics and instructor requirements. **Semester Hours:** 3 to 3

HLTH 6840 - Independent Study: HLTH

Instructor approval required. Allowed only under special and unusual circumstances. Regularly scheduled courses cannot be taken as independent study. **Semester Hours:** 1 to 8

HLTH 6911 - Health Field Studies

The objective of this course is to expose students to health care organizations with which they are not familiar. Each student is assigned to a health care organization and given a specific problem or project to complete. Prereq: HLTH 6010 or permission of instructor. After registration, please contact Errol.Biggs@ucdenver.edu for further instructions. **Semester Hours:** 3 to 3

Humanities Courses (HYMN)

HUMN 1012 - The Humanistic Tradition: Modes of Expression

Familiarizes students with humanistic modes of expression through the study of history, literature, philosophy, music, and the visual and dramatic arts. **Semester Hours:** 3 to 3

HUMN 3250 - Introduction to Law Studies

Introduces students to the materials and methods of law studies. Students learn how to read case law, brief a case, make a course outline, analyze fact patterns, and perform legal research and writing projects. **Semester Hours:** 3 to 3

HUMN 5000 - 19th Century Philosophy

Covers the systematic work of such German idealists as Hegel, Fichte, and Shelling, as well as responses to those systems by such authors as Marx, Kierkegaard, and Nietzsche. Prereq: PHIL 3002 or 3022. Cross-listed with PHIL 4000/5000 and SSCI 5000. **Semester Hours:** 3 to 3

HUMN 5013 - Philosophical Problems in the Social Sciences and the Humanities

Presents an overview of key theoretical issues currently emerging across academic disciplines. Examines questions about reality, knowledge, ethics that affect social research and writing in the humanities. Readings explore how contemporary philosophical and cultural discourses have altered theory and method. Assignments include influential theoretical pieces by key historical and contemporary thinkers, examples of application in social research, and interpretations of thought and affect in cultural contexts. Cross-listed with PHIL/SSCI 5013. **Semester Hours:** 3 to 3

HUMN 5020 - Elements of Social Thought

Introduces students to the disciplines that comprise the social sciences (classical anthropology, sociology, sociology of religion, philosophy of history, political theory, classical psychology, etc.). Provides necessary tools for interdisciplinary students to understand the social infrastructure of contemporary society. Cross-listed with SSCI 5020 and PHIL 5020. **Semester Hours:** 3 to 3

HUMN 5025 - Methods and Texts of the Humanities

Exposes the beginning graduate student to exemplary works and methodologies of select humanistically oriented disciplines, such as philosophy, fine arts, literature, history, communication, music, and theatre. **Semester Hours:** 3 to 3

HUMN 5101 - Pragmatism: Classical American Philosophy

The most significant philosophical tradition born in the United States is pragmatism. Examines several of the most important classical works of this tradition, the influence of thinkers who have helped pragmatism, and the contemporary relevance of this tradition. Figures who may be included in this course are: Emerson, Pierce, Royce, James, Dewey, Mead, Rorty. Prereq: An introductory course in philosophy. Cross-listed with PHIL 4101, 5101, SSCI 5101. **Semester Hours:** 3 to 3

HUMN 5220 - Aesthetics and the Philosophy of Art

Introduction to major theories of aesthetics and contemporary discussions of problems in aesthetics and the philosophy of art, including topics such as: the nature of art, interpretation and evaluation in art. Cross-listed with PHIL 4220/5220. **Semester Hours:** 3 to 3

HUMN 5242 - Bioethics

Examines some of the major moral issues confronting the nation's health care system. The class will search for solutions to such problems as financing health care for those unable to do so on their own, determining the extent of a patient's right to both refuse and demand certain types of medical treatment, and allocating scarce medical resources such as life-saving vital organs. The springboard for examining these issues will be the doctor or patient relationship framed by the moral principles of respect for persons and beneficence. Cross-listed with PHIL 4242, PHIL 5242, SSCI 5242. **Semester Hours:** 3 to 3

HUMN 5250 - Environmental Ethics

While human industry/technology creates enormous material prosperity, it can result in devastating environmental damage. This course analyzes the moral values, consequences and duties implied in relationships between human beings, animals and ecological systems, while seeking out new and ethical approaches. Cross-listed with PHIL 4250/5250 and SSCI 5250. **Semester Hours:** 3 to 3

HUMN 5520 - The City Beautiful: Art, Architecture and Theory in Urban History

How did cities develop and what were the buildings that filled these spaces? Posing this question initially, this course takes a case-study approach to surveying the concerns confronting different cultures as they developed their urban environments sociologically, anthropologically, architecturally and spatially. Cross-listed with SSCI 5520. **Semester Hours:** 3 to 3

HUMN 5550 - Paris 1910: Art, Philosophy and Psychology

Traces the influences of philosophy, psychology, and art in the English, French, and German-speaking worlds in the early twentieth century. This intellectual history is extended to broader cultural and political contexts. Key period is between 1910 and 1968, when modernity's key aspirations and tensions became explicit. Cross-listed with PHIL 5550 and SSCI 5550. **Semester Hours:** 3 to 3

HUMN 5600 - Philosophy of Religion

Nature of religion and methods of studying it. Cross-listed with PHIL 4600, 5600, RLST 4060, 5060, and SSCI 5600. **Semester Hours:** 3 to 3

HUMN 5650 - Reflections on Modernity

Explores modernity as a historical epoch and a theoretical space, looking at the commentaries and reflections of influential 20th century thinkers including Adorno, Arendt, Levinas, Merleau-Ponty, Habermas and Foucault. Examines how the theoretical inclinations of modernity were influenced by politics, art, literature and culture. Cross-listed with PHIL 5650 and SSCI 5650. **Semester Hours:** 3 to 3

HUMN 5660 - Visual Arts: Interpretations and Contexts

Provides graduate-level interdisciplinary study in the historiography, methodologies, and theories used to understand how visual arts, including painting, sculpture, photography, film and performance art influence the making of culture. Students gain critical skills for analyzing a variety of visual and aesthetic products of culture. Prereq: Upper-division undergraduate or graduate standing. **Semester Hours:** 3 to 3

HUMN 5710 - Women and Religion

A sociological exploration of the contemporary roles of women in religion. Course examines American and world religious groups with an eye to women's involvement. Considers how women have changed these traditions as they take on leadership roles and discusses the tensions that arise within these traditions as a result of their expanded participation. Cross-listed with SSCI 4710/5710, WGST 4710/5710, RLST 4710/5710. **Semester Hours:** 3 to 3

HUMN 5720 - Sexuality, Gender and Their Visual Representation

Studies sexuality, gender and identity representation from classical antiquity through the present in the visual arts. Uses the literature of visibility, feminism, race and queer theory. Explores representations of femininity, masculinity and androgyny and their reinforcement and challenge to gender-identity norms. Cross-listed with SSCI 5720 and WGST 5720. **Semester Hours:** 3 to 3

HUMN 5750 - Philosophical Psychology

Explores debates about psyche and body, mind and world, self and others, and consciousness and nature. Examines the philosophical questions related to those debates that arise within theories of perception, affect and cognition offered by influential psychological models. Cross-listed with PHIL 5755, SSCI 5750. **Semester Hours:** 3 to 3

HUMN 5770 - Imperialism, Post-Colonial Theory & Visual Discourse

Western empires disseminate political, social, economic & cultural practices through complex interplay of cultural practices. Visual production is a complex site for meaning making within imperialism. Examines how visual discourses operated to create meaning. **Semester Hours:** 3 to 3

HUMN 5833 - Existentialism

Examines one of the most influential movements in recent European thought, beginning with existentialism's 19th century roots, and continuing on to the existentialist philosophers of the 20th century. Figures covered may include Dostoyevsky, Kierkegaard, Nietzsche, Heidegger, Sartre and de Beauvoir. Cross-listed with PHIL 4833/5833 and SSCI 5833. **Semester Hours:** 3 to 3

HUMN 5840 - Independent Study: HUMN

Semester Hours: 1 to 3

HUMN 5920 - Philosophy of Media and Technology

A philosophical examination of interrelationships between contemporary media, technology, and their impacts upon character of contemporary life and values. Topics may include ethics,

epistemology, democracy, advertising, media literacy and criticism. Cross-listed with PHIL 4920, 5920, SSCI 5920. **Semester Hours:** 3 to 3

HUMN 5924 - Directed Research and Reading in Interdisciplinary Humanities

Provides background reading, theory and research approaches for students to develop a thesis, project, or an individualized theme for the oral exam based on their interdisciplinary focus.

Semester Hours: 3 to 3

HUMN 5933 - Philosophy of Eros

Why is philosophy an erotic activity, and what are the implications of this insight? We will explore these issues, first, by reading Plato's erotic dialogues: Lysis, Symposium and Phaedrus. Then we will focus on Freud's influential (and controversial) appropriation of Plato's thought in the writings that span his career, from *The Interpretation of Dreams* (1900) to *Civilization and its Discontents* (1930) and beyond. Finally, we will survey post-Freudian theories of Eros, such as Michel Foucault's *History of Sexuality*, as well as the more recent contributions of thinkers such as Jonathan Lear, Thomas Nagel, Martha Nussbaum and Slavoj Žižek. Cross-listed with PHIL 4933/5933, SSCI 5933, and WGST 4933/5933. **Semester Hours:** 3 to 3

HUMN 5939 - Internship

Semester Hours: 1 to 6

HUMN 5950 - Master's Thesis

Semester Hours: 1 to 8

HUMN 5960 - Master's Project

Semester Hours: 1 to 8

HUMN 5984 - Topics: Interdisciplinary Humanities

Semester Hours: 3 to 3

International Business Courses (INTB)

INTB 2939 - Internshp

Semester Hours: 1 to 3

INTB 3000 - Global Perspectives

Globalization brings both opportunities and anxieties that need to be fully explored, discussed and understood both by the business and non-business student. This interdisciplinary course is designed to stimulate thought, perspective, discussion and debate for business and non-business students on issues ranging from globalization; political economy and geopolitics; the environment; cultures; finances; economic integration; trade; global regions; emerging markets; human rights; terrorism and conflict; leadership, ethics and values; entrepreneurship, to future trends in global issues. The Global Perspective course is designed (1) to increase and promote both business and non-business students' capacity for international understanding and international enterprise through the study and discussion of global business environment-related issues from multiple points of views in a neutral forum. (2) It is to provide students with the awareness that global issues cannot be viewed in isolation, that they are all interrelated.

Semester Hours: 3 to 3

INTB 3901 - The Construction of the European Union

An overview of past and future development in Europe, including economic, political, and social aspects from the point of view of EU members, bordering countries, and world powers. The single market and its repercussions for businesses and the impact of the creation of a single market are studied. Offered through the ACI Semester in Paris program. Prereq: Acceptance to the ACI program. **Semester Hours:** 3 to 3

INTB 3902 - Intercultural Management: European Values and Behavior

An in-depth study of European cultural differences and what unites the European nations. Histories and cultures of European countries are used to understand differences in communication, management, and organizational development. Case studies provide a synthesis of European and U.S. management practices. Offered through the ACI Semester in Paris program. Prereq: Acceptance to the ACI program. **Semester Hours:** 3 to 3

INTB 3903 - International Business Law

Provides a legal framework necessary for international business transactions and judicial risks. Combining theory and case studies, the course covers contract law, dispute settlement, and international business specific operations: international sales, distribution and exclusive concession contracts, franchise contracts, commercial agency contracts, and technology transfer contracts. Offered through the ACI Semester in Paris program. Prereq: BLAW 3000 and acceptance to the ACI program. **Semester Hours:** 3 to 3

INTB 3904 - International Negotiation

Studies the position of the company in the international marketing process; general knowledge of negotiators' external environments; preparation of a negotiation and the negotiating process;

and expression of each party within the context of a contract. Offered through the ACI Semester in Paris program. Prereq: Acceptance to the ACI program. **Semester Hours:** 3 to 3

INTB 3905 - International Marketing and Distribution

A practical view of the development of foreign markets, emphasizing strategic decisions of international development and analysis of company expertise regarding preferences and entrance into the marketplace. Problems pertaining to implementation of international sales policies and evolution of product distribution are also studied. Offered through the ACI Semester in Paris program. Prereq: MKTG 3000 and acceptance to the ACI program. **Semester Hours:** 3 to 3

INTB 3906 - International Communication and Consumer Behavior

Examines the influence of culture on purchasing and consuming as well as the importance of cultural values in consumer behavior. Provides the necessary framework to understand the current global market situation (product development, global market structures, global marketing strategies). An analysis of communication and advertising in an international context. Prereq: MKTG 3000 and acceptance to the ACI program. **Semester Hours:** 3 to 3

INTB 3907 - European Marketing and Management of a Product Line

Trains students to analyze the main characteristics and trends of the European marketing environment and business development. With extensive use of case studies, it examines such issues as European product launches. Prereq: MKTG 3000 and acceptance to the ACI program. **Semester Hours:** 3 to 3

INTB 3908 - Organizations and Culture

Introduces a range of ideas about organizations and how they work. Issues of internationalization in the context of organizational structure and culture, covering such topics as the global-local dilemma, the "transnational" approach and structural criteria. Modern organizational challenges assessed: innovation and technology. Prereq: MGMT 3000 and acceptance to ACI program. **Semester Hours:** 3 to 3

INTB 3909 - Single Market, European Law and Euroland

Overview of past and future steps in the development of Europe, economics, political and social aspects from the point of view of EU members, bordering countries (Central Europe) and world powers (United States, Japan and Asia). The single market and its repercussions for business (free access to the market, common rules, single currency) and the impact of the single market on their strategies. Prereq: Acceptance to the ACI program. **Semester Hours:** 3 to 3

INTB 3910 - International Corporate Finance

The objective of this seminar is to provide an overview of international corporate finance, understand the main differences in accounting standards, interpret and critically analyze the financial reports issued by international firms, and have a working knowledge of cost accounting principles. Prereq: FNCE 3100 and acceptance to the ACI program. **Semester Hours:** 3 to 3

INTB 3911 - The United States Of Europe

The objectives of this seminar are to allow students to obtain a practical knowledge of and develop a thorough understanding of the integrative process taking place among several European countries, and to give them a unique chance to become familiar with the various political, economical, legal, cultural, and human aspects of the European community being developed and institutionalized, on a brand new, historical, and transnational level. Prereq: Acceptance to the ACI program. **Semester Hours:** 3 to 3

INTB 3912 - Global Marketing-Communication

Semester Hours: 3 to 3

INTB 3939 - Internship

Supervised experiences involving the application of concepts and skills in an employment situation. Prereq: Senior standing and a 3.5 GPA. **Semester Hours:** 1 to 3

INTB 4028 - Travel Study Topics

Semester Hours: 3 to 3

INTB 4400 - Environments of International Business

An overview of the environmental complexities that arise when business activities and firms cross national borders. Key international business environmental complexities associated with country differences, cross-border trade and investment, and global monetary system are examined. Prereq: MGMT 3000 and junior standing. Cross-listed with MGMT 4400. **Semester Hours:** 3 to 3

INTB 4410 - Operations of International Business

Focuses on the impact of environmental factors on international business operations and the identification and analysis of complex strategic and operational issues facing business firms in global markets. The strategies and structures of international businesses, alternative foreign market entry modes, and the unique roles of various business functions at international business firms are explained and assessed. Prereq: INTB 4400 or MGMT 4400. Cross-listed with MGMT 4410. **Semester Hours:** 3 to 3

INTB 4950 - Special Topics in International Business

Current topics in international business are occasionally offered. Consult the 'Schedule Planner' for specific course offerings or contact an advisor for information. Prereq: Topics vary depending on the topic and the instructor requirements. **Semester Hours:** 3 to 3

INTB 5800 - Special Topics in International Business

Current topics in international business are occasionally offered. Consult 'Schedule Planner' for specific course offerings or contact an advisor for information. Prereq: Topics vary depending on the topic and the instructor requirements. **Semester Hours:** 3 to 3

INTB 5939 - Internship

Supervised experiences involving the application of concepts and skills in an employment situation. Prereq: 21 semester hours and a 3.5 grade-point average. **Semester Hours:** 1 to 3

INTB 6000 - Introduction to International Business

An overview of the international business environment, the impact of environmental factors on international business operations, and the identification of current and complex managerial issues facing organizations engaged in international business. **Semester Hours:** 3 to 3

INTB 6020 - Cross-Cultural Management

Focuses on the management of diverse socio-cultural and political norms and values in the global marketplace. The goal of this course is to develop skills in managing impacts of such values and norms on the effectiveness of international business operations and managerial activities. Prereq: INTB 6000 or permission of instructor. **Semester Hours:** 3 to 3

INTB 6022 - International Business Negotiations

Examines the international dimensions of business negotiations. It addresses the impact of the cultural, legal, political environments in the negotiation process, and examines similarities and differences in negotiation styles and approaches across borders. (This course qualifies as an international elective for the MS in International Business program.) **Semester Hours:** 3 to 3

INTB 6024 - International Trade Finance and Management

Provides an overview of international trade finance and trade management. It examines the roles played by various parties involved in international trade, addresses key methods of international payment and related financing, and provides practical experiences on how to manage the import and export trade management process. (This course qualifies as an international elective for the MS in International Business program.) **Semester Hours:** 3 to 3

INTB 6026 - International Marketing

Explores problems, practices, and strategies involved in marketing goods and services internationally. Emphasizes analysis of uncontrollable environments, legal systems, and economic conditions, as they affect international marketing planning. (This course qualifies as an international elective for the MS in International Business program.) Prereq: BUSN 6560. Note: Students cannot receive credit for both MKTG 6020 and INTB 6026. Cross-listed with MKTG 6020. **Semester Hours:** 3 to 3 **When Offered:** FALL SPR

INTB 6028 - Travel Study Topics

Semester Hours: 3 to 3

INTB 6040 - Managing Global Talent

This course has two objectives: (1) to understand the impact of cultural differences in the management of people in multinational firms; and (2) to compare and contrast critical human resource issues in the contexts of domestic and international operations. Topics include recruitment, staffing, training, performance appraisal, compensation, and labor and management relations in markets around the world. (This course qualifies as an international

elective for the MS in International Business program.) Prereq: MGMT 6380 or BUSN 6520 (or equivalent). Cross-listed with MGMT 6040. **Semester Hours:** 3 to 3

INTB 6060 - The Legal Aspects of International Business

Analyzes the legal aspects of international business transactions and considers risk-reducing mechanisms such as letters of credit and arbitration. The course examines NAFTA, the European union, and other international trading structures and rules, giving the background for export or import activities. (This course qualifies as an international elective for the MS in International Business program.) **Semester Hours:** 3 to 3

INTB 6080 - Global Competition

Focuses on the dynamics of the interface between international business operations and their market environments. It addresses the changing structure of international competitive environments and its implications for companies engaged in international business. It examines various approaches to and issues in structuring international business deals in dynamic global competitive environments. (This course qualifies as an international elective for the MS in International Business program.) Prereq: INTB 6000 or permission of instructor. **Semester Hours:** 3 to 3

INTB 6082 - Marketing in Emerging Markets

Explores problems, practices, and strategies involved in marketing goods and services in emerging markets. Emphasizes analysis of uncontrollable environmental forces, including cultures, governments, legal systems, and economic conditions, as they affect the marketing plan. (This course qualifies as an international elective for the MS in International Business program.) Prereq: BUSN 6560. Note: Students cannot receive credit for both MKTG 6080 and INTB 6082. Cross-listed with MKTG 6080. **Semester Hours:** 3 to 3

INTB 6094 - Marketing Issues in the Chinese Environment

This course assesses numerous marketing and marketing related topics in the Chinese environment with the objective of helping the graduate student develop managerial and marketing expertise. In specific, the course pinpoints key developments in the Chinese business environment, develops expertise in conducting market opportunity analysis, assesses market entry conditions and strategies and applies marketing mix strategies in the context of the Chinese environment. Note: It is recommended for students to take BUSN 6560 or INTB 6000 prior to this course. Cross-listed with MKTG 6094. **Semester Hours:** 3 to 3

INTB 6200 - International Business Policy

The objective of this course is to develop competence relevant to strategy formulation and implementation in a multi-national enterprise, and in an international context. Provides theoretical knowledge, skills, and sensitivities that help deal effectively with the strategic and managerial problems of managing in a global environment. Prereq: INTB 6000 and 18 graduate credit hours. **Semester Hours:** 3 to 3

INTB 6370 - International Accounting

Designed to expose students to the international aspects of accounting and financial management. Includes discussion of some of the different financial accounting practices across countries; financial statement analysis in a global context. IFRS's are reviewed and compared with the requirements of US GAAP. Note: Students cannot receive credit for both ACCT 6370 and INTB 6370. Prereq: BUSN 6550 or equivalent. Cross-listed with ACCT 6370 and ACCT 4370. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

INTB 6372 - International Financial Management

Addresses financial management in an international context that considers international capital movements and foreign exchange problems, and international operations as they affect financial functions. It reviews foreign and international institutions and the foreign exchange process and considers financial requirements, problems, sources, and policies of firms doing business internationally. Meets concurrently with FNCE 6370. Prereq: BUSN 6640. Cross-listed with FNCE 6370. **Semester Hours:** 3 to 3

INTB 6411 - International Corporate Governance

Discusses the structure and goals of the modern corporation, the primary governance mechanisms used to help companies achieve these goals, how and why these roles, goals, and mechanisms vary across nations. The topics to be covered in the course include how share ownership, particularly by institutional shareholders, managerial compensation and board of director activities are being used to improve corporate governance systems. The class compares the Codes of Best Governance Practices from several countries as well as recent innovations in individual company governance rating systems. (This course qualifies as an international elective for the MS in International Business program.) Prereq: BUSN 6640. Note: Students cannot receive credit for both FNCE 6411 and INTB 6411. Cross-listed with FNCE 6411.

Semester Hours: 3 to 3

INTB 6460 - Emerging Market Finance

This course aims to explore key emerging market finance issues from the perspectives of corporations, investors and markets. Emerging economies are deemed to be the engine of growth opportunities in the world economy. However, compared with developed markets, they typically have some unique features in their economic systems and financial markets, and thus different risk and return characteristics, leading to special considerations of capital budgeting, financing and investing in these economies. This course is to help develop a better understanding of financial markets, corporate finance and investments in emerging economies, with case studies on some major emerging markets (e.g., China, India). Prereq: BUSN 6620 and 6640. Cross-listed with FNCE 6460. **Semester Hours:** 3 to 3

INTB 6750 - Research Methods in International Business

Focuses on three major issues: (1) research design from an international management perspective (e.g., qualitative, quantitative and ethnographic); (2) topical issues (e.g., culture, international negotiations, mergers and alliances); (3) trends in international business research (e.g., cross-national project teams, emerging theoretical perspectives). This course qualifies as

an international elective for the MS in International Business program. Prereq: INTB 6000 and BUSN 6530 or equivalent. **Semester Hours:** 3 to 3

INTB 6800 - Special Topics in International Business

Current topics in international business are occasionally offered. This includes international field study courses. Consult the 'Schedule Planner' for specific course offerings or contact an advisor for information. (This course qualifies as an international elective for the MS in International Business program.) Prereq: Topics vary depending on topic and instructor requirements. **Semester Hours:** 3 to 3

INTB 6840 - Independent Study

Instructor approval required. Allowed only under special and unusual circumstances. Regularly scheduled courses cannot be taken as independent study. (This course qualifies as an international elective for the MS in International Business program.) **Semester Hours:** 1 to 8

INTB 6870 - Global Climate Change

Global climate change may be one of the most important challenges facing business in the 21st century. This course will introduce the potential impacts of climate, then discuss possible regulatory responses to and business risks and opportunities that may emerge if climate change occurs. Cross-listed with BUSN 6870. **Semester Hours:** 3 to 3

INTB 6950 - Master's Thesis

Prereq: INTB 6750. **Semester Hours:** 1 to 8

Instructional Technology Courses (INTE)

INTE 5110 - Instructional Development and Production

Systematic analysis, design, development, production, and evaluation of instructional units and materials. Apply systems design model and instructional theories to the development of learning resources. Topics include needs assessment; learner, content, g **Semester Hours:** 2 to 4

INTE 5120 - Instructional Models, Strategies and Tactics

Instructional development principles and procedures for developing instructional sequences for facts, concepts, procedures and principles. Application of different instructional and development models. **Semester Hours:** 3 to 3

INTE 5140 - Performance Technology

Analysis to determine whether human performance problems are problems that can be solved by instruction or by other means, such as organizational redesign, incentives, or performance support systems. **Semester Hours:** 3 to 3

INTE 5160 - Managing Information and Learning Technology Programs

Problems in the organization and administration of information learning and technology programs and projects. Topics include project management, personnel administration, budget development, resource planning, and team collaboration. **Semester Hours:** 3 to 3

INTE 5200 - Designing and Organizing an Online Course

This course helps educators transition to teaching online. Create online experiences, activities, assessments, and resources. Explore blended learning environments, synchronous and asynchronous instruction, the use of emerging technologies and trends al **Semester Hours:** 3 to 3

INTE 5250 - Facilitating and Fostering Online Learning

This course provides a foundation for effective online teaching strategies in course management, communication, motivation, social presence and facilitation. Explores several online teaching strategies and approaches for creating engaging learning experi **Semester Hours:** 3 to 3

INTE 5310 - Producing Educational Materials

Design and production of materials such as videos, multimedia, presentations and websites to support learning goals. **Semester Hours:** 3 to 3

INTE 5330 - Digital Storytelling

Introduction to methods and strategies for design and production of digital stories. Topics include principles of design, procedures of the development process, use of stories for education and personal development and introduction to multimedia tools for **Semester Hours:** 2 to 2

INTE 5340 - Digital Storytelling in the Curriculum

Integration of digital stories in the curriculum. Review of settings and purposes for educational uses of digital stories. Methods re-using and presenting stories for instruction; facilitating student creation of stories; developing instructional units; p **Semester Hours:** 3 to 3

INTE 5345 - Exploring Culture Through Digital Storytelling

Semester Hours: 3 to 3

INTE 5350 - Leadership for Digital Storytelling

Train the trainer workshop for digital storytelling. Includes practice and training in facilitation methods in narrative/group workshop methods as well as technical software instruction. Additional activities include review of storytelling principles and **Semester Hours:** 2 to 2

INTE 5370 - Digital Video For Interactivity

Digital video design and production for online and multimedia instruction. Topics include needs assessment and media selection; scripting and design; shooting; lighting; sound; editing; formats and conversion; and multimedia integration. **Semester Hours:** 3 to 3

INTE 5410 - Designing Text and Graphics for Instruction

Instructional, structural, and typographic principles and techniques for designing text and illustration-based instructional materials, including programmed instruction, job aids, diagrams, documents, user manuals and online text. **Semester Hours:** 3 to 3

INTE 5510 - Integrating Technology in the Curriculum

Principles and practices of technology integration in K12 classrooms and schools. Topics include: support for standards-based curriculum; evaluation and selection of resources; roles of technology in support of learning; teacher and learner roles; adaptin **Semester Hours:** 2 to 3

INTE 5520 - Technologies for Learning and Productivity

Using a wide variety of technological tools, including word processing, database, spreadsheet, graphics, presentation, and communications software, facilitate learning and manage the instructional process. **Semester Hours:** 1 to 4

INTE 5600 - Multimedia Authoring

Teaches the use of multimedia authoring tools to develop multimedia instruction or World Wide Web resources. Skills include: producing programs to meet educational needs; integrating digital content into office applications and multimedia resources. Prere **Semester Hours:** 3 to 3

INTE 5610 - Principles for Designing Multimedia

Theory and practice of designing effective instruction for World Wide Web and multimedia delivery. Prereq: INTE 5600. **Semester Hours:** 3 to 3

INTE 5640 - Technology of Student-Centered Learning Environments

Theory and principles behind complex learning environments aimed at developing student responsibility, collaborative learning, and higher order thinking methods for technology support are examined. **Semester Hours:** 3 to 3

INTE 5650 - Policies and Planning for eLearning Programs

Methods and strategies for planning, implementing and evaluating e-learning and distance-learning programs. Review of trends and issues currently affecting learning programs and delivery of online and hybrid forms of education. **Semester Hours:** 3 to 3

INTE 5660 - Designing and Teaching in eLearning Environments

In this hands-on course, students use a variety of tools and strategies to design and teach in eLearning environments. The course covers critical aspects of designing and teaching an online course, such as planning a successful online learning experience **Semester Hours:** 3 to 3

INTE 5665 - Social Media & Digital Culture

The focus of this course is on how educators leverage networked social tools, technologies, and environments to address educational needs, opportunities, and problems of practice; and establish and nurture their own professional learning through participation **Semester Hours:** 3 to 3 **When Offered:** FALL SPR

INTE 5670 - Developing eLearning Instruction

In this applied course, students build an online learning course (as planned during INTE 5660) while developing basic skills with Web and multimedia eLearning authoring tools. You will learn how to enhance online courses by incorporating interactivity, co **Semester Hours:** 3 to 3

INTE 5680 - Integrating Media in eLearning Environments

Students develop and integrate media resources into eLearning environments, applying principles of media selection and multimedia learning. You will survey and sample a variety of tools for production of audio, video, and multimedia content and examine w **Semester Hours:** 3 to 3

INTE 5690 - Enhancing Web-based Learning Environments with JavaScript and PHP Programming

Using JavaScript and PHP, this course teaches the technologies behind Web design that turn static HTML pages into interactive Web applications. Issues to consider with each technology are explored so intelligent decisions can be made when adopting a parti **Semester Hours:** 4 to 4

INTE 5710 - Telecommunications and Networking in Education

Overview of computer-mediated communications (CMC) and networking and applications to education. Topics include: operating systems; hardware/software troubleshooting; networking in education and classroom and lab management. Prereq: Basic computer experie **Semester Hours:** 3 to 3

INTE 5830 - Information and Learning Technologies Workshop

Specific titles vary depending upon the specific skill areas within information and learning technologies. **Semester Hours:** 0.5 to 4

INTE 5840 - Independent Study: INTE

Semester Hours: 1 to 4

INTE 5990 - Special Topics in Instructional Technology

Semester Hours: 1 to 6

INTE 5998 - Professional Development Activities

Provides guidance for professional development through participation in appropriate state, regional, and national conferences for meeting leaders and colleagues while upgrading professional knowledge and skills in the field. Prereq: Enrollment in a graduate program. **Semester Hours:** 1 to 2

INTE 6110 - Managing Instructional Development

Organization, supervision and budgeting of instructional development projects in training and education. **Semester Hours:** 3 to 3

INTE 6120 - Design Studio For Project Management and Collaboration

Collaborative management of instructional-design projects meeting demonstrated needs in real-life settings. Skills include: management of time, personnel and resources; meeting client needs and expectations; communication with team and client; information management. **Semester Hours:** 2 to 6

INTE 6130 - Implementing and Evaluating Instruction

Methods for implementing instructional materials in field settings; evaluating materials for learning impact and program revision. **Semester Hours:** 3 to 3

INTE 6515 - Leadership for Learning Technologies Integration

Leadership for integrating technology into a standards-based curriculum. Through mentoring, service, or training, model and assist teachers and administrators in adopting technologies and information resources to support learning and assessment activities. **Semester Hours:** 3 to 3

INTE 6530 - Development Projects in Information and Learning Technologies

The creation and application of instructional systems combining unique instructional advantages of technologies to emphasize high levels of interactivity. Advanced projects must meet specific objectives to cover program design and development, hardware and software. **Semester Hours:** 3 to 3

INTE 6710 - Creative Designs for Instructional Materials

This course is a project-based exploration of instructional-materials design theories, principles, and best practices used to communicate complex information to a diverse audience for the purpose of teaching and learning. You will apply unique design approaches. **Semester Hours:** 3 to 3

INTE 6720 - Research in Information and Learning Technologies

Analysis, evaluation, and production of research in instructional technology. Methods for observing instruction, assessing learning, and collecting participants reports to improve instruction. Development of recommendations for action based on research **Semester Hours:** 3 to 3

INTE 6730 - Comparative Models of Instructional Design

Advanced seminar in analyzing the theoretical foundations and the instructional implications of different models and theories of instructional design. **Semester Hours:** 3 to 3

INTE 6740 - Learning Processes Applied to Instructional Technology

Principles of learning and instruction for technology-mediated learning. Topics include case-based and project-based teaching and other inquiry-learning strategies; tutorial and direct-instruction; and self-directed learning. **Semester Hours:** 2 to 3

INTE 6750 - Current Trends and Issues in Instructional Technology

This course examines definitions, history, core concepts, and current trends and issues related to the practice of instructional technology. Topics include instructional systems design, theories of learning and instruction, change management, performance **Semester Hours:** 3 to 3

INTE 6760 - Advanced Seminar in Instructional Design and Development

Topical seminars to investigate issues, new models, or techniques in the field of instructional design and development. **Semester Hours:** 3 to 3

INTE 6840 - Independent Study: INTE

Semester Hours: 1 to 4

INTE 6930 - Internship in Information and Learning Technologies

Placement in a business, school or field setting where professional skills are applied to assess needs, design, develop and evaluate an instructional system, and provide leadership for change. **Semester Hours:** 1 to 4

INTE 6950 - Master's Thesis

A master's thesis is part of the degree track options for use in conjunction with, or in lieu of, comprehensive exams. Credit hours, topic, and workload are determined by the student's advisor. Prereq: Completion of all other course requirements and permission of advisor. **Semester Hours:** 4 to 4

INTE 6960 - Master's Project

Credit hours, topic, and work load are determined by the student's advisor. Prereq: Completion of all other course requirements and permission of advisor. **Semester Hours:** 1 to 4

INTE 6999 - Leadership and Practice in Information and Learning Technologies

Reflective examination of the adoption and use of information and learning technologies in applied settings. Topics include change strategies, system analysis, planning and evaluating technology use, and roles of technology specialists. **Semester Hours:** 3 to 3

Initial/Professional Teacher Education Courses (IPTE)

IPTE 4002 - Math Instruction and Assessment

Designed to prepare elementary teachers to teach mathematics in elementary schools while applying the six principles of the National Council of Teachers of Mathematics (NCTM) (equity, curriculum, teaching, learning, assessment and technology) to the four areas of mathematical learning (number sense, statistics and probability, geometry and measurement, and mathematical functions). Teachers explore ways to help all elementary students become flexible and resourceful problem solvers in mathematics. Prereq: MATH 3040. Concurrent enrollment in an internship or permission of an instructor is required. Admission into the IPTE Program. Cross-listed with IPTE 5002. **Semester Hours:** 2 to 2

IPTE 4005 - Social Studies in the Elementary Curriculum

Designed to prepare elementary teachers to support students' learning related to the Colorado social studies standards. The course includes attention to social studies curriculum and teaching resources, approaches and strategies for effective teaching and assessment of social studies content, and to the teaching of literacy and math within social studies content. The course also helps teachers understand how to model democratic ideals in a classroom. Cross-listed with IPTE 5005. **Semester Hours:** 2 to 2

IPTE 4006 - Integrated Science and Social Studies in the Elementary Curriculum

Designed to support elementary teachers in developing an understanding and appreciation of active science and social studies explorations in elementary classrooms, learning various methods of teaching and assessing science and social studies that prepare students to meet content standards, developing authentic applications and integrating with other elementary content areas, including literacy and math, to support more holistic learning. Cross-listed with IPTE 5006. **Semester Hours:** 4 to 4

IPTE 4026 - Content Literacy Assessment and Instruction Teaching Lab

The secondary literacy teaching lab is designed to support novice and experienced teachers from all content areas in examining students' reading and writing performance data and using the data to plan instruction that assist secondary students in meeting reading and writing standards through work in content area classes. Conducted by teacher experts who possess knowledge of literacy strategies useful in content area teaching, labs utilize the data from the students that the lab participants are teaching. Prereq: IPTE 4025 and IPTE 4910 or teaching experience. Concurrent enrollment in an internship or permission of instructor required. Admission into the IPTE Program. Cross-listed with IPTE 5026. **Semester Hours:** 1 to 1

IPTE 4050 - Planning for the First Year of Teaching

Designed to assist those who are about to enter into their first year of teaching in planning for the first year, with a focus on: 1) creating community; 2) professional learning; and 3) curriculum and instruction. Cross-listed with IPTE 5050. **Semester Hours:** 1 to 1

IPTE 4120 - Negotiating the Classroom Culture with Children

A central purpose of classroom management is to establish and maintain a learning environment that fosters both effective and efficient instruction in the context of a positive social culture that models democratic ideals for students. This course focuses on the dimensions of classroom life as they are directly influenced by the social and cultural background of elementary students. Prereq: Concurrent enrollment in an internship. Admission into the IPTE Program. Cross-listed with IPTE 5120. **Semester Hours:** 3 to 3

IPTE 4121 - Negotiating the Classroom Culture with Adolescents

A central purpose of classroom management is to establish and maintain a learning environment that fosters both effective and efficient instruction in the context of a positive social culture that models democratic ideals for students. This course focuses on the dimensions of classroom life as they are directly influenced by the social and cultural background of middle and high school students. Prereq: Concurrent enrollment in an internship is required. Admission into the IPTE Program. Cross-listed with IPTE 5121. **Semester Hours:** 3 to 3

IPTE 4130 - Democratic Schooling: Issues of Laws and Ethics

Designed to provide an understanding of the legal, social, ethical, and democratic context of schools, the teacher's legal and ethical role in schools, and to examine the related issues that currently face teachers, parents, students, legislators and administrators. The aim is to facilitate the clarification of a personal value system through readings and discussions of the foundations of schooling in America. Cross-listed with IPTE 5130. **Semester Hours:** 3 to 3

IPTE 4351 - Inquiry Science Methods

Designed to provide an in-depth study of inquiry science methods and how inquiry science supports standards-based education. The course provides a review of research on the pedagogy that supports student understanding, problem solving and creativity through the use of inquiry science. Participants learn a variety of methods, techniques and resources for teaching inquiry science, understand the processes of "doing" science, and develop lessons that actively engage students in science in their own classrooms. Prereq: Concurrent enrollment in an internship or permission of instructor is required. Admission into the IPTE Program. Cross-listed with IPTE 5351. **Semester Hours:** 3 to 3

IPTE 4460 - Thoughtful Inquiry in Teaching Social Studies: Culture, People and Change

Focuses on the themes of culture, people, and change, this course equips secondary teachers with the skills and knowledge needed to plan and implement secondary social studies curriculum using integrated methodology. Additionally, this course increases teachers' understanding regarding the role of social studies education in the school curriculum and familiarizes teachers with problems, issues, and trends associated with social studies curricula. Prereq: Concurrent enrollment in an internship or permission of instructor required. Cross-listed with IPTE 5460. **Semester Hours:** 3 to 3

IPTE 4465 - Thoughtful Inquiry in Teaching Social Studies: Power, Technology and Society

Focuses on the themes of power, technology, and society, this course equips secondary teachers with the knowledge and skills needed to plan and implement secondary social studies curriculum using integrated methodology. Additionally, this course increases teachers' understanding regarding the role of social studies education in the school curriculum and familiarizes teachers with problems, issues, and trends associated with social studies curricula. Prereq: Concurrent enrollment in an internship or permission of instructor required. Cross-listed with IPTE 5465. **Semester Hours:** 3 to 3

IPTE 4800 - Special Topics: Initial and Professional Teacher Ed

Workshop in Initial and Professional Teacher Education. Specific content will vary. Cross-listed with IPTE 5800. **Semester Hours:** 3 to 3

IPTE 4911 - Internship and Site Seminar II

Teacher candidates engage in systematic observation of, participation in, design of, and reflection on curricular, instructional, and management practices across the full range of educational programs within a school (e.g., general and special education, bilingual education, Title I services, etc.). Additionally, teacher candidates participate in the activities of a school community (the school, its classrooms and the community in which the school exists). Graduated learning activities for each internship and time requirements are specified in the School Internship Handbook. In partner schools, the partner school site coordinator and the site professor are responsible for coaching and supervising teacher candidates and for supporting the clinical teachers in their work with teacher candidates. Site coordinators and professor conduct site seminars focused on providing teacher candidates with information about the partner school context and support for success within that context. In internships outside of partner school settings, cooperating teachers, district coordinators, and/or university professors work with teacher candidates in the classroom and in seminars. Prereq: IPTE 4910 with a B or better. Admission into the IPTE Program. Cross-listed with IPTE 5911. **Semester Hours:** 2 to 2

IPTE 4912 - Internship and Site Seminar III

Teacher candidates engage in systematic observation of, participation in, design of, and reflection on curricular, instructional, and management practices across the full range of educational programs within a school (e.g., general and special education, bilingual education, Title I services, etc.). Additionally, teacher candidates participate in the activities of a school community (the school, its classrooms and the community in which the school exists). Graduated learning activities for each internship and time requirements are specified in the School Internship Handbook. In partner schools, the partner school site coordinator and the site professor are responsible for coaching and supervising teacher candidates and for supporting the clinical teachers in their work with teacher candidates. Site coordinators and professor conduct site seminars focused on providing teacher candidates with information about the partner school context and support for success within that context. In internships outside of partner school settings, cooperating teachers, district coordinators, and/or university professors work with teacher candidates in the classroom and in seminars. Prereq: IPTE 4911 with a B or

better. Admission into the IPTE Program. Cross-listed with IPTE 5912. **Semester Hours:** 3 to 3

IPTE 4913 - Internship and Site Seminar IV

Teacher candidates engage in systematic observation of, participation in, design of, and reflection on curricular, instructional, and management practices across the full range of educational programs within a school (e.g., general and special education, bilingual education, Title I services, etc.). Additionally, teacher candidates participate in the activities of a school community (the school, its classrooms and the community in which the school exists). Graduated learning activities for each internship and time requirements are specified in the School Internship Handbook. In partner schools, the partner school site coordinator and the site professor are responsible for coaching and supervising teacher candidates and for supporting the clinical teachers in their work with teacher candidates. Site coordinators and professor conduct site seminars focused on providing teacher candidates with information about the partner school context and support for success within that context. In internships outside of partner school settings, cooperating teachers, district coordinators, and/or university professors work with teacher candidates in the classroom and in seminars. Prereq: IPTE 4912, with a B or better, passing score on the Place/Praxis content exam and satisfactory progress in the program. Cross-listed with IPTE 5913. **Semester Hours:** 6 to 6

IPTE 4915 - Internship and Seminar I

Teachers working in their own classrooms while earning an initial teaching license engage in assessment, instruction, management, and collaborate with their colleagues across the full range of educational programs in their school (e.g., general and special education, bilingual education, Title I services, etc.). They also participate in the activities of a school community (the school and the community in which the school exist). Supervision and coaching of the teacher is negotiated by the employing district and the university but is likely to be a joint responsibility of district or school and university personnel. Teachers attend monthly seminars focused on current challenges and/or performance-based assessments. Prereq: Continuing contract as a teacher, satisfactory completion of the preceding internship, and concurrent enrollment in scheduled IPTE coursework. **Semester Hours:** 4 to 4

IPTE 4916 - Internship and Seminar II

Teachers working in their own classrooms while earning an initial teaching license engage in assessment, instruction and management and collaborate with their colleagues across the full range of educational programs in their school (e.g., general and special education, bilingual education, Title I services, etc.). They also participate in the activities of a school community (the school and the community in which the school exist). Supervision and coaching of the teacher is negotiated by the employing district and the university but is likely to be a joint responsibility of district or school and university personnel. Teachers attend monthly seminars focused on current challenges and/or on performance-based assessments. Prereq: IPTE 4915 and continuing contract as a teacher. **Semester Hours:** 4 to 4

IPTE 4917 - Internship and Seminar III

Teachers working in their own classrooms while earning an initial teaching license engage in assessment, instruction and management and collaborate with their colleagues across the full range of educational programs in their school (e.g., general and special education, bilingual education, Title I services, etc.). They also participate in the activities of a school community (the school and the community in which the school exist). Supervision and coaching of the teacher is negotiated by the employing district and the university but is likely to be a joint responsibility of district or school and university personnel. Teachers attend monthly seminars focused on current challenges and/or on performance-based assessments. Prereq: Continuing contract as a teacher, satisfactory completion of the preceding internship, and concurrent enrollment in scheduled IPTE coursework. **Semester Hours:** 4 to 4

IPTE 4918 - Internship and Seminar IV

Teachers working in their own classrooms while earning in initial teaching license engage in assessment, instruction and management and collaborate with their colleagues across the full range of educational programs in their school (i.e., general and special education, bilingual education, Title I services, etc.). They also participate in the activities of a school community (the school and the community in which the school exist). Supervision and coaching of the teacher is negotiated by the employing district and the university but is likely to be a joint responsibility of district or school and university personnel. Teachers attend monthly seminars focused on current challenges and/or on performance-base assessments. Prereq: A continuing teaching contract; satisfactory completion of the preceding internships and coursework and concurrent enrollment in scheduled coursework or permission of instructor. **Semester Hours:** 4 to 4

IPTE 5002 - Math Instruction and Assessment

Designed to prepare elementary teachers to teach mathematics in elementary school while applying the six principles of the National Council of Teachers of Mathematics (NCTM) (equity, curriculum, teaching, learning, assessment and technology) to the four areas of mathematical learning (number sense, statistics and probability, geometry and measurement, and mathematical functions). Teachers explore ways to help all elementary students become flexible and resourceful problem solvers in mathematics. Prereq: MATH 3040. Concurrent enrollment in an internship or permission of an instructor is required. Cross-listed with IPTE 4002.

Semester Hours: 2 to 2

IPTE 5005 - Social Studies in the Elementary Curriculum

Designed to prepare elementary teachers to support students' learning related to the Colorado social studies standards. The course includes attention to social studies curriculum and teaching resources, approaches and strategies for effective teaching and assessment of social studies content, and to the teaching of literacy and math within social studies content. The course also helps teachers understand how to model democratic ideals in a classroom. Cross-listed with IPTE 4005. **Semester Hours:** 2 to 2

IPTE 5006 - Integrated Science and Social Studies in the Elementary Curriculum

Designed to support elementary teachers in developing an understanding and appreciation of active science and social studies explorations in elementary classrooms, learning various methods of teaching and assessing science and social studies that prepare students to meet content standards, developing authentic applications and integrating with other elementary content areas, including literacy and math, to support more holistic learning. Cross-listed with IPTE 4006. **Semester Hours:** 1 to 4

IPTE 5026 - Content Literacy Assessment and Instruction Teaching Lab

The secondary literacy teaching lab is designed to support novice and experienced teachers from all content areas in examining students' reading and writing performance data and using the data to plan instruction that assist secondary students in meeting reading and writing standards through work in content area classes. Conducted by teacher experts who possess knowledge of literacy strategies useful in content area teaching, labs utilize the data from the students that the lab participants are teaching. Prereq: IPTE 5025 and 5910 or teaching experience. Concurrent enrollment in an internship or permission of instructor required. Cross-listed with IPTE 4026. **Semester Hours:** 1 to 1

IPTE 5050 - Planning for the First Year of Teaching

Designed to assist those who are about to enter into their first year of teaching in planning for the first year, with a focus on: 1) creating community; 2) professional learning; and 3) curriculum and instruction. Prereq: IPTE 5913 with a grade of "B" or better. Cross-listed with IPTE 4050. **Semester Hours:** 1 to 1

IPTE 5070 - Teacher Inquiry I

The teachers develop a greater understanding of strategies and methods for conducting classroom and beyond-the-classroom inquiry that help them explore important questions about teaching and learning. Prereq: IPTE 5913 with a grade of "B" or better. **Semester Hours:** 2 to 2

IPTE 5071 - Teacher Inquiry II

Part II: Teachers conduct school and/or community-based inquiries in collaboration with each other and/or with their mentor teachers. Teachers share their clinical findings with their new school colleagues. Prereq: IPTE 5070. **Semester Hours:** 1 to 1

IPTE 5080 - Principles and Practice of Change

Teachers read widely from the literature on the societal, institutional, managerial, and political contexts of change in schooling. They examine their roles as instructional leaders, reflective practitioners and change agents as they use scholarly treatment of these topics in their daily work. Prereq: IPTE 5912 with a grade of "B" or better. **Semester Hours:** 3 to 3

IPTE 5120 - Negotiating the Classroom Culture with Children

A central purpose of classroom management is to establish and maintain a learning environment that fosters both effective and efficient instruction in the context of a positive

social culture that models democratic ideals for students. This course focuses on the dimensions of classroom life as they are directly influenced by the social and cultural background of elementary students. Prereq: Concurrent enrollment in an internship. Cross-listed with IPTE 4120. **Semester Hours:** 3 to 3

IPTE 5121 - Negotiating the Classroom Culture with Adolescents

A central purpose of classroom management is to establish and maintain a learning environment that fosters both effective and efficient instruction in the context of a positive social culture that models democratic ideals for students. This course focuses on the dimensions of classroom life as they are directly influenced by the social and cultural background of middle and high school students. Prereq: Concurrent enrollment in an internship. Cross-listed with IPTE 4121. **Semester Hours:** 3 to 3

IPTE 5130 - Democratic Schooling: Issues of Laws and Ethics

Designed to provide an understanding of the legal, social, ethical, and democratic context of schools, the teacher's legal and ethical role in schools, and to examine the related issues that currently face teachers, parents, students, legislators and administrators. The aim is to facilitate the clarification of a personal value system through readings and discussions of the foundations of schooling in America. Cross-listed with IPTE 4130. **Semester Hours:** 3 to 3

IPTE 5351 - Inquiry Science Methods

Designed to provide an in-depth study of inquiry science methods and how inquiry science supports standards-based education. The course provides a review of research on the pedagogy that supports student understanding, problem solving and creativity through the use of inquiry science. Participants learn a variety of methods, techniques and resources for teaching inquiry science, understand the processes of "doing" science, and develop lessons that actively engage students in science in their own classrooms. Prereq: Concurrent enrollment in an internship or permission of instructor is required. Cross-listed with IPTE 4351. **Semester Hours:** 3 to 3

IPTE 5460 - Thoughtful Inquiry in Teaching Social Studies: Culture, People and Change

Focuses on the themes of culture, people, and change, this course equips secondary teachers with the skills and knowledge needed to plan and implement secondary social studies curriculum using integrated methodology. Additionally, this course increases teachers' understanding regarding the role of social studies education in the school curriculum and familiarizes teachers with problems, issues, and trends associated with social studies curricula. Prereq: Concurrent enrollment in an internship or permission of instructor required. Cross-listed with IPTE 4460. **Semester Hours:** 3 to 3

IPTE 5465 - Thoughtful Inquiry in Teaching Social Studies: Power, Technology and Society

Focuses on the themes of power, technology, and society, this course equips secondary teachers with the knowledge and skills needed to plan and implement secondary social studies curriculum using integrated methodology. Additionally, this course increases teachers' understanding regarding the role of social studies education in the school curriculum and

familiarizes teachers with problems, issues, and trends associated with social studies curricula. Prereq: Concurrent enrollment in an internship or permission of instructor required. Cross-listed with IPTE 4465. **Semester Hours:** 3 to 3

IPTE 5690 - Curriculum and Methods in Foreign Language

Methodology to teaching French, German, and Spanish in an urban setting. Prereq: Concurrent enrollment in an internship required. **Semester Hours:** 3 to 3

IPTE 5691 - Curriculum and Methods in Foreign Language II

Methodology to teaching French, German, and Spanish in an urban setting. Prereq: Concurrent enrollment in an internship required. **Semester Hours:** 3 to 3

IPTE 5800 - Special Topics

Semester Hours: 3 to 3

IPTE 5800 - Special Topics: Initial & Professional Teacher Ed

Workshop in Initial and Professional Teacher Education. Specific content will vary. Cross-listed with IPTE 4800. **Semester Hours:** 3 to 3

IPTE 5840 - Independent Study: IPTE

Semester Hours: 1 to 4

IPTE 5910 - Internship and Site Seminar I

Teacher candidates engage in systematic observation of, participation in, design of, and reflection on curricular, instructional, and management practices across the full range of educational programs within a school (e.g., general and special education, bilingual education, Title I services, etc.). Additionally, teacher candidates participate in the activities of a school community (the school, its classrooms and the community in which the school exists). Graduated learning activities for each internship and time requirements are specified in the School Internship Handbook. In partner schools, the partner school site coordinator and the side professor are responsible for coaching and supervising teacher candidates, and for supporting the clinical teachers in their work with teacher candidates. Site coordinators and professor conduct site seminars focused on providing teacher candidates with information about the partner school context and support for success within that context. In internships outside of partner school settings, cooperating teachers, district coordinators, and/or university professors work with teacher candidates in the classroom and in seminars. Cross-listed with IPTE 4910.

Semester Hours: 2 to 2

IPTE 5911 - Internship and Site Seminar II

Teacher candidates engage in systematic observation of, participation in, design of, and reflection on curricular, instructional, and management practices across the full range of educational programs within a school (e.g., general and special education, bilingual education, Title I services, etc.). Additionally, teacher candidates participate in the activities of a school community (the school, its classrooms and the community in which the school exists). Graduated learning activities for each internship and time requirements are specified in the

School Internship Handbook. In partner schools, the partner school site coordinator and the site professor are responsible for coaching and supervising teacher candidates and for supporting the clinical teachers in their work with teacher candidates. Site coordinators and professor conduct site seminars focused on providing teacher candidates with information about the partner school context and support for success within that context. In internships outside of partner school settings, cooperating teachers, district coordinators, and/or university professors work with teacher candidates in the classroom and in seminars. Prereq: IPTE 5910 with a B or better. Cross-listed with IPTE 4911. **Semester Hours:** 2 to 2

IPTE 5912 - Internship and Site Seminar III

Teacher candidates engage in systematic observation of, participation in, design of, and reflection on curricular, instructional, and management practices across the full range of educational programs within a school (e.g., general and special education, bilingual education, Title I services, etc.). Additionally, teacher candidates participate in the activities of a school community (the school, its classrooms and the community in which the school exists). Graduated learning activities for each internship and time requirements are specified in the School Internship Handbook. In partner schools, the partner school site coordinator and the site professor are responsible for coaching and supervising teacher candidates and for supporting the clinical teachers in their work with teacher candidates. Site coordinators and professor conduct site seminars focused on providing teacher candidates with information about the partner school context and support for success within that context. In internships outside of partner school settings, cooperating teachers, district coordinators, and/or university professors work with teacher candidates in the classroom and in seminars. Prereq: IPTE 5911 with a B or better. Cross-listed with IPTE 4912. **Semester Hours:** 3 to 3

IPTE 5913 - Internship and Site Seminar IV

Teacher candidates engage in systematic observation of, participation in, design of, and reflection on curricular, instructional, and management practices across the full range of educational programs within a school (e.g., general and special education, bilingual education, Title I services, etc.). Additionally, teacher candidates participate in the activities of a school community (the school, its classrooms and the community in which the school exists). Graduated learning activities for each internship and time requirements are specified in the School Internship Handbook. In partner schools, the partner school site coordinator and the site professor are responsible for coaching and supervising teacher candidates and for supporting the clinical teachers in their work with teacher candidates. Site coordinators and professor conduct site seminars focused on providing teacher candidates with information about the partner school context and support for success within that context. In internships outside of partner school settings, cooperating teachers, district coordinators, and/or university professors work with teacher candidates in the classroom and in seminars. Prereq: IPTE 5912, with a B or better, passing score on the Place/Praxis content exam and satisfactory progress in the program. Cross-listed with IPTE 4913. **Semester Hours:** 6 to 6

IPTE 5915 - Internship and Seminar I

Teachers working in their own classrooms while earning an initial teaching license engage in assessment, instruction, management, and collaborate with their colleagues across the full range

of educational programs in their school (e.g., general and special education, bilingual education, Title I services, etc.). They also participate in the activities of a school community (the school and the community in which the school exist). Supervision and coaching of the teacher is negotiated by the employing district and the university but is likely to be a joint responsibility of district or school and university personnel. Teachers attend monthly seminars focused on current challenges and/or performance-based assessments. Prereq: Continuing contract as a teacher, satisfactory completion of the preceding internship, and concurrent enrollment in scheduled IPTE coursework. **Semester Hours:** 4 to 4

IPTE 5916 - Internship and Seminar II

Teachers working in their own classrooms while earning an initial teaching license engage in assessment, instruction and management and collaborate with their colleagues across the full range of educational programs in their school (e.g., general and special education, bilingual education, Title I services, etc.). They also participate in the activities of a school community (the school and the community in which the school exist). Supervision and coaching of the teacher is negotiated by the employing district and the university but is likely to be a joint responsibility of district or school and university personnel. Teachers attend monthly seminars focused on current challenges and/or on performance-based assessments. Prereq: IPTE 5915 and continuing contract as a teacher. **Semester Hours:** 4 to 4

IPTE 5917 - Internship and Seminar III

Teachers working in their own classrooms while earning an initial teaching license engage in assessment, instruction and management and collaborate with their colleagues across the full range of educational programs in their school (e.g., general and special education, bilingual education, Title I services, etc.). They also participate in the activities of a school community (the school and the community in which the school exist). Supervision and coaching of the teacher is negotiated by the employing district and the university but is likely to be a joint responsibility of district or school and university personnel. Teachers attend monthly seminars focused on current challenges and/or on performance-based assessments. Prereq: Continuing contract as a teacher, satisfactory completion of the preceding internship, and concurrent enrollment in scheduled IPTE coursework. **Semester Hours:** 4 to 4

IPTE 5918 - Internship and Seminar IV

Teachers working in their own classrooms while earning in initial teaching license engage in assessment, instruction and management and collaborate with their colleagues across the full range of educational programs in their school (i.e., general and special education, bilingual education, Title I services, etc.). They also participate in the activities of a school community (the school and the community in which the school exist). Supervision and coaching of the teacher is negotiated by the employing district and the university but is likely to be a joint responsibility of district or school and university personnel. Teachers attend monthly seminars focused on current challenges and/or on performance-base assessments. Prereq: A continuing teaching contract; satisfactory completion of the preceding internships and coursework and concurrent enrollment in scheduled coursework or permission of instructor. **Semester Hours:** 4 to 4

IPTE 5919 - Second Endorsement Internship or Guest Student Teaching

A specially arranged internship for those seeking a second endorsement in an area in which they are already teaching or wish to teach and/or for those from another state who wish to do their student teaching in Colorado and transfer credits back to their home institution. The number of credits and possible fee is arranged according to circumstances. Prereq: Letter from employing district certifying employment in teaching field for which licensure is sought or a letter from home institution certifying readiness to student teach. **Semester Hours:** 4 to 12

Information Systems Courses (ISMG)

ISMG 2050 - Introduction to Business Problem Solving

Focuses on the technology and problem solving skills necessary for students to succeed both at school and in the business world. Focuses on business decision making using spreadsheets, database and web tools. Students solve problems in statistics, accounting, finance, marketing, management and information systems. The objective is to provide problem solving methods necessary for students to succeed in the business community. This is a business core course therefore a grade of a 'C' or better must be earned to satisfy Business graduation and prerequisites for other business courses. **Semester Hours:** 3 to 3

ISMG 2075 - Introduction to Microsoft Access

Introduction to Microsoft Access prepares students to use data bases to analyze data and solve real-life business problems. It challenges students to use critical thinking and analysis to find efficient and effective solutions to real-life business situations. Students will use databases to solve problems in accounting, finance, and information systems. Prereq: Computer Competency. **Semester Hours:** 1 to 1

ISMG 2200 - Introduction to Business Programming

Examines how business applications are developed. Emphasis is placed on developing complete and user-friendly programming solutions to business problems. Students are introduced to an object-oriented programming language for implementing event-driven business problem solutions. Prereq: ISMG 2050. **Semester Hours:** 3 to 3

ISMG 2800 - Designing for the Web

Students examine how the Web is evolving to support a variety of business needs. The course covers the design and usability principals necessary for improving online interactions via traditional websites as well as using technologies promoting collaboration and information sharing (e.g. social networks, blogs, wikis, forms). Topics include: the principles of web page and web site design; hypertext markup language, cascading style sheets, streaming video, online collaboration technologies; client and server scripting; and the process of testing and publishing web sites. Prereq: ISMG 2050 or taken concurrently with ISMG 2050. **Semester Hours:** 3 to 3
When Offered: *SPRING*

ISMG 3000 - Technology In Business

Covers the role of information technology in business organizations. It exposes students to innovative and interesting technologies and illustrates how those technologies are changing the way businesses operate. It highlights the importance of IT in or **Semester Hours:** 3 to 3
When Offered: *FALL SPR*

ISMG 3100 - Information Technology Hardware and Software

Provides the hardware/software technology background to enable systems development personnel to understand tradeoffs in computer architecture for effective use in business environment. System architecture for single user, central, and networked computing systems; single and multi-user operating systems. Prereq: ISMG 3000. **Semester Hours:** 3 to 3

ISMG 3200 - Programming, Data, File and Object Structures

Provides an understanding of algorithm development, programming, computer concepts, and the design and application of data and file structures. Includes an understanding of the logical and physical structure of both programs and data. The "JAVA" programming language will be used as the vehicle for investigating a variety of data structure topics. Topics include: data structures and representation; characters, records, files and multimedia; precision of data; information representation, organization and storage; algorithm development; object representation compared to conventional data flow notation; programming control structures; program correctness, verification, and validation; file structures and representation. Prereq: ISMG 2200. **Semester Hours:** 3 to 3

ISMG 3300 - Social Media in Business

Social media has become a central component of many business activities including marketing, HR, product management and the supply chain. In this course, we examine the organizational use of social media technologies such as blogs and social networks, as well as the use of social media analytics to drive business strategy. Cross-listed with MKTG 3300. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

ISMG 3500 - Enterprise Data and Content Management

The success of today's business often hinges on the ability to turn mountains of data into critical information to make right decisions quickly and efficiently. This course introduces students to data, content and multimedia management using current enterprise data management tools. Topics include: Oracle SQL for relational database and for multi-media content; Oracle forms and reports, XML, and content management. Prereq: ISMG 2050 or equivalent, transfer credit VALIDATION (may need ISMG 2075 - 1 credit). **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ISMG 3600 - System Strategy, Architecture and Design

This course is designed to provide the understanding of current concepts related to information systems development in an organizational context. It emphasizes the interactive nature of the analysis and design process. Topics include: requirements analysis, model based analysis and design; evaluating outsourcing, COTS and other systems acquisition options; and quality, six-sigma, and ethics in design. New concepts such as agile modeling and extreme programming are covered. Prereq: ISMG 2050 or equivalent, transfer credit VALIDATION (may need ISMG 2075 - 1 credit). **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ISMG 3939 - Internship

Supervised experiences involving the application of concepts and skills in an employment situation. Prereq: Senior standing and 3.5 GPA. **Semester Hours:** 1 to 3

ISMG 4200 - Building Business Applications

Examines how business technologies are designed and implemented. Usability, logic, and platform selection issues are highlighted through the development of simple business systems. Includes Windows interface design; storing, retrieving, and manipulating information; real time decision making; task automation through iteration; platform selection (mobile, desktop or

web); and web programming. Prereq: ISMG 2800. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ISMG 4300 - Information Security and Compliance

This course covers information security threats and various mechanisms available to organizations to defend against information compromise. It offers thorough analysis of state, national, and international information security regulations with which businesses must comply, including the Sarbanes-Oxley, Gramm-Leach-Bliley and Hippa Acts. The regulatory compliance analysis will include measures the organizations must and should perform to be in compliance. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ISMG 4500 - Database Management and Applications

The success of today's business often hinges on the ability to turn mountains of data into critical information and to utilize the critical information to make the right decisions quickly and efficiently. This course introduces students to the basic principles of data management and utilization. Topics include data modeling, normalization and database design, query formulation using SQL and QBE and interface design. Actual database management systems products (e.g. Oracle and Access) are utilized to demonstrate the design of database applications in management, marketing, finance, accounting and other business areas. Each student will also design a working database system as a project. Prereq: ISMG 3000. **Semester Hours:** 3 to 3

ISMG 4600 - Systems Analysis and Design

Provides an understanding of the system development and maintenance process. It enables students to evaluate and choose a system development methodology. Topics include: systems development life cycle phases, structured analysis and design, object-oriented analysis and design; prototyping, joint application development (JAD) and structured walk-through; communication, interviewing, interpersonal and presentation skills; risk and feasibility analysis, project management, systems operations and support. Prereq: ISMG 3000. **Semester Hours:** 3 to 3

ISMG 4700 - Business Data Communications and Networking

Provides an in-depth knowledge of data communications and networking requirements including: networking and telecommunications technologies, hardware, and software. Emphasis is upon the analysis and design of networking applications in organizations. Management of telecommunications networks, cost-benefit analysis, and evaluation of connectivity options are also covered. Students learn to evaluate, select, and implement different communication options within an organization. Topics include: network hardware and software; network configuration; network applications; distributed versus centralized systems; network architectures, topologies and protocols; network performance analysis; privacy, security, reliability; management of telecommunications, and communications standards. Prereq: Jr. Standing. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ISMG 4750 - Business Intelligence and Financial Modeling

In this course, the student learns to analyze and solve financial problems with spreadsheet models, apply Oracle Financial and Business Intelligence software that is widely used in

corporate financial operations and model risk and uncertainty with Monte Carlo software. Prereq: ISMG 2050, FNCE 3000 and ISMG 3000 (or ACCT 3054) with a grade of 'C' or better. Cross-listed with FNCE 4750. **Semester Hours:** 3 to 3

ISMG 4760 - Customer Relationship Management

This marketing-theory driven course examines customer relationship management (CRM) as a key strategic process for organizations. Composed of people, technology and processes, effective CRM optimizes the selection or identification, acquisition, growth and retention of desired customers to maximize profit. Besides presenting an overview of the CRM process, its strategic role in the organization and its place in marketing, students have an opportunity to create simulated CRM database using popular software package that help to illustrate what CRM can do, its advantages and limitations. Prereq: MKTG 3000 and ISMG 3000. Cross-listed with MKTG 4760. **Semester Hours:** 3 to 3

ISMG 4780 - Accounting and Information Systems Processes and Controls

The course is designed to develop knowledge and skills used to understand and evaluate corporate accounting processes and systems. It focuses on financial and information system internal controls and the flow of corporate information through accounting system. A financial system objective and risk assessment approach is used to present concepts and techniques for evaluating the adequacy of system processes and controls. Prereq: Completion of ACCT 2200 and 2220 with a grade of 'C' or better. Strictly enforced. Cross-listed with ACCT 4780, 6510 and ISMG 6510. **Semester Hours:** 3 to 3

ISMG 4800 - eBusiness Systems Development

Students analyze business problems and develop data-driven eBusiness applications to solve them. Development skills include presenting and receiving information through a web site, validating entered information and storing entered information in text files or databases. Students develop an understanding of the principles of web page and web site design; standard object models, Hypertext Markup Language, client scripting and server programs for database and file access; testing, software quality assurance; and the process of publishing Web pages. Prereq: ISMG 2200. **Semester Hours:** 3 to 3

ISMG 4840 - Independent Study

Semester Hours: 1 to 8

ISMG 4900 - Project Management and Practice

Covers the factors necessary for successful management of enhancement projects. Both technical and behavioral aspects of project management are discussed. The focus is on management of development for enterprise-level systems. Topics include: managing the system lifecycle; requirements determination, logical design, physical design, testing, implementation; metrics for project management; managing expectations: superiors, users, team members and others related to the project; determining skill requirement and staffing the project; cost-effectiveness analysis; reporting and presentation techniques; effective management of both behavioral and technical aspects of the project; change management. Note: Successful completion of this course meets the educational requirements to sit for both the PMP and CAPM

exams. Prereq: ISMG 2200. Cross-listed with CSCI 4900 and MGMT 4900. **Semester Hours:** 3 to 3

ISMG 4950 - Special Topics

Seldom offered. This course varies from offering to offering. Typically, it is a research-oriented course exploring new developments in information systems. Prerequisites vary according to topic. **Semester Hours:** 3 to 3

ISMG 5939 - Internship

Supervised experiences involving the application of concepts and skills in an employment situation. **Semester Hours:** 1 to 3

ISMG 6020 - .Net Programming Fundamentals

This course is designed to provide a thorough introduction to the .Net programming environment. C# is studied as the target object-oriented programming language. Principles of object-oriented programming are demonstrated using programming constructs taken from the business domain. Students are required to apply this knowledge through a series of C# programming exercises, which includes developing Windows Forms applications for the desktop and mobile platforms. Prereq: Basic knowledge of a programming language such as JAVA, C, or Basic. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ISMG 6040 - Business Process Management

Designing effective information systems for business requires an awareness of the organization(s) business processes and how to manage and streamline them. The objectives of the course are for students to understand the importance of business processes; the main types of business processes; and the evolution of business process management; business process outsourcing; business process re-engineering; business process redesign; technology enabled business processes; and automated workflow. An important activity is graphically mapping business processes, which are transformed into an application or set of applications. The organization needs to manage the electronic workflow to monitor that the work gets done and allow changes to the workflow. Case studies of organizations are studied for most topics to enhance understanding. The group projects let students apply their knowledge of the course to a specific organization. By the end of this course students should have an appreciation of the important process-centric issues in business systems design. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ISMG 6060 - Analysis, Modeling and Design

Provides an understanding and application of systems analysis and design processes. Students are exposed to system development life cycle (SDLC), structured systems analysis and design methods, object-oriented analysis and design methods, prototyping and commercial off-the-shelf package software approaches, and joint and rapid application development. Emphasizes the skills required for system analysts such as analytical, interpersonal, technical, fact-finding, and project management skills. Topics include data, process and object modeling, input-output and user interface design, and systems implementation and support. To provide an opportunity to develop these skills, an information system project is completed by a group of students.

Students use a Case tool for their group project. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ISMG 6071 - Introduction to Health Information Technology

Examines what needs transforming in healthcare to improve value, safety and appropriateness of care, and what the role of IT is in that transformation. It also examines the challenges of cultural change and IT strategy in succeeding with clinical information projects. Differences between installation, implementation, transition and actual transformation are suggested and methods for managing subcultures in healthcare (IT, clinical, administrative) are reviewed. Cross-listed with HLTH 6071. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ISMG 6072 - Fundamentals of Health Information Technology Management

Provides an introduction to the management of information technology in healthcare. A description of information processing, the origin, content, evolution of healthcare information systems and the methodologies deployed to acquire and manage information requirements are discussed. Cross-listed with HLTH 6072. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ISMG 6080 - Database Management Systems

The success of today's business often hinges on the ability to utilize critical information to make the right decisions quickly and efficiently. Transforming mountains of data into critical information to improve decision making is a skill every business decision maker must possess. This focus course covers the database design topics with a focus on enabling business decision making. Detailed topics include collecting, capturing, querying and manipulating data (using SQL and QBE) for simple to medium complex business applications. Commercial database products (e.g. ORACLE and ACCESS) are utilized to demonstrate the design of database applications in management, marketing, finance, accounting, and other business areas. Students will be able to design and implement simple to medium complex database applications after successful completion of this course. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ISMG 6120 - Internet and Mobile Technologies

Communication, knowledge sharing, and information acquisition within and between businesses are critical for long term strategic business success. Technological advancements are radically changing the way business communication and knowledge sharing is performed. This course will briefly examine traditional concepts of wired local area networks for reference purposes, but then will focus on how newer mobile technologies are changing the way business communication and knowledge transfer are conducted. Mobile technologies that will be examined in this course include: WiFi wide area networks, wireless local area networks, cellular telephones, smart phones, and other portable computing devices. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ISMG 6180 - Information Systems Management and Strategy

The effective use of information technology requires the alignment of competitive strategies, business processes, and IT applications. In this course, we take a top management perspective to the development of policies and plans that maximize the contribution of IT to organizational goals. We begin by examining the systems that support the operational, administrative, and

strategic needs of organizations. We then investigate the approaches used to manage the IT function, taking into account legacy and emerging technologies. The vital role of the CIO and project champions are explored. Note: Students cannot receive credit for both ISMG 6180 and BUSN 6610. Cross-listed with BUSN 6610. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

ISMG 6200 - Global Information Systems

Will focus on managing information technology globally and the new organizational and information technology designs that firms are establishing to meet the ever-growing global requirements. The course will cover such issues as how information is used and how information technology is deployed by multinationals in different countries, the state of information technology and telecommunication industries in countries around the world, how global firms gain strategic benefits from information technology, and how firms manage and use global virtual teams. Prereq: ISMG 6040 or 6120 or BUSN 6610. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ISMG 6220 - Business Intelligence Systems

This course covers technical and managerial issues associated with the development and use of decision support systems, expert systems, executive information systems, and advanced intelligent systems. The DSS component covers decision theory, model management, and business intelligence with an emphasis on how decision-making can be supported using data warehouses, OLAP, and data mining and visualization tools. The ES component focuses on knowledge acquisition, representation, reasoning, and using advanced intelligent systems, over the web. In addition, collaboration, communication, enterprise decision support system integration, impacts, and the future of MSS are discussed. The use of DSS and online analytical processing (OLAP) and the selection of decision support applications and tools are important learning objectives for this course. Critical to the success of DSS is the use of data warehouses. The basics of data warehousing are covered through a variety of companies' experiences. The course also covers Business Performance Management (BPM) and the use of digital dashboards and balanced scorecards as evolution of EIS. Hands-on experience is provided through the use of leading-edge technologies including MicroStrategy business intelligence tool. Prereq: ISMG 6080. Cross-listed with BUSN 6812. **Semester Hours:** 3 to 3 **When Offered:** *SPR SUM*

ISMG 6240 - Website Development Practice and Technologies

Presents a broad coverage of design principles and techniques to develop effective web sites. The course emphasizes: (1) understanding the principles of web page and web site design and the process of publishing web pages, (2) developing client-side scripts for use in web sites, (3) using server-side programs or scripts to develop dynamic web sites using databases, and (4) understanding technologies for managing large web sites including XML schemas, content management systems and web services. Prereq: ISMG 6080. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ISMG 6280 - Service Oriented Architecture

Explores "Service Oriented Architecture" (SOA), which refers to a design pattern made up of components and interconnections that stress interoperability and location transparency. Covers

the latest heterogeneous models for carrying out large scale distributed computing using Web services. The fundamentals of defining, designing, building, testing and rolling-out a SOA system are explored using tools from major Web service vendors. Also, looks at the impact of SOA on software quality, efficiency, performance and flexibility. Prereq: ISMG 6060. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ISMG 6420 - Global Enterprise Systems

Examines the evolution of global enterprise systems - from internally focused enterprise resource planning (ERP) client or server systems to externally focused eBusiness. Studies the types of issues managers need to consider in implementing cross-functional integrated enterprise systems. Examines the general nature of global enterprise computing, re-engineering principles and the technical foundations of client or server systems and enterprise information architectures. Students learn about the global enterprise systems marketplace. Topics include the tools and methodology, modules, processes and industry initiatives. Finally, the course looks into the future and predicts enterprise system trends. The objective of the course is to make students aware of the potential and limitations of global enterprise systems. The objective will be reached through case studies, lectures, guest speakers and a group project. Prereq: ISMG 6180 or BUSN 6610 (6810). **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ISMG 6430 - Information Systems Security and Privacy

Designed to develop knowledge and skills for security of information and information systems within organizations. Focuses on concepts and methods associated with planning, designing, implementing, managing, and auditing security at all levels and on all systems platforms, including enterprise systems. This course presents techniques for assessing risk associated with accidental and intentional breaches of security as well as disaster recovery planning. Prereq: ISMG 6180 or BUSN 6610 (6810). **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ISMG 6450 - IT Project Management

Focuses on how firms successfully manage the adoption of It. Projects and program management principles are the primary focus of this course. Topics covered include approaches to prioritizing projects, estimating cost and time-to-market, build vs. buy decision, planning, monitoring and controlling implementation, measurement, total cost of ownership, effective management of both behavioral and technical aspects of the project and change management. Prereq: ISMG 6180 or BUSN 6610 (6810). **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ISMG 6460 - Emerging Technologies

Provides an introduction to the expansive array of information technologies that form the infrastructure of a modern business enterprise. Emphasis is placed on learning conceptual technological foundations and understanding the business value of the various technologies. The purpose of the course is to develop the student's ability to discuss recent technological advancements with other It professionals and management. Technology assessment is emphasized. Prereq: ISMG 6180 or BUSN 6610 (6810). Cross-listed with BUSN 6800. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ISMG 6480 - Data Warehouse and Administration

Management of large, complex data warehouses and operational databases involves technical skills and background needed by information systems professionals as well as tactical and strategic issues faced by information technology managers. This course provides conceptual knowledge, practical skills, and policy background for prospective information systems professionals and information technology managers. The course covers business aspects, conceptual background, and product material about management of data warehouses and operational databases. Assignments and projects involve Oracle skills for database administration and tactical or strategic issues faced by information technology management. Prereq: ISMG 6080. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ISMG 6510 - Accounting and Information Systems Processes and Controls

Designed to develop knowledge and skills used to understand and evaluate corporate accounting processes and systems. Focuses on financial and information system internal controls and the flow of corporate information through an accounting system. A financial system objective and risk assessment approach issued to present concepts and techniques for evaluating the adequacy of system processes and controls. Cross-listed with ACCT 6510, 4780 and ISMG 4780.

Semester Hours: 3 to 3

ISMG 6800 - Special Topics

A variety of advanced topics are offered in this course. Past topics include the human-computer interface, software engineering, artificial intelligence, graphical user interface, project management and electronic commerce. Consult the current 'Schedule Planner' for semester offerings. Note: Seldom offered. **Semester Hours:** 3 to 3

ISMG 6810 - Business Intelligence in Healthcare

Provides students with an overview of how business intelligence is used in the healthcare industry. Students study the evolution of It in healthcare including enterprise systems and systems integration. Next the course looks at the evolution of business intelligence in general. Using case studies and hands on exercises, students learn about different aspects of business intelligence in various subsets of the healthcare industry. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ISMG 6820 - Business Intelligence and Financial Modeling

This course will introduce students to the application of business intelligence in a corporate finance setting. Financial data intelligence is essential for effective decision making throughout the firm, in finance directly and in other functions supported by the finance department. Strategy setting, budgeting, and new product development are just a few decision areas where finance personnel play an active role. In this course, we learn how to apply Oracle e-Business Suite, a finance and business intelligence software tool that provides modules for financial reporting, analysis, budgeting, and planning. These tools enable finance personnel to access and analyze corporate data in support of critical decision making across the enterprise. Students will also analyze data through the use of financial models built in Microsoft Excel. The development of complex financial models will provide students with valuable hands-on experience with a

software tool used widely incorporate finance departments. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ISMG 6830 - IT Governance and Service Management

Deals with interrelated decisions on clarifying the business role of IT, defining integration and standardization requirements for the IT architecture, shared and enabling services for the IT infrastructure and business need for SaaS, and governance of cl **Semester Hours:** 3 to 3

ISMG 6840 - Independent Study: ISMG

Instructor approval required. Allowed only under special and unusual circumstances. Regularly scheduled courses cannot be taken as independent study. **Semester Hours:** 1 to 8

ISMG 6950 - Master's Thesis

Semester Hours: 1 to 8

ISMG 7001 - AI-Based Decision Making

Introduces decision making concepts. It covers a range of approaches, techniques and tools for decision aiding and describes how they can be used to support decision processes. The topics include human decision making, decision support systems, knowledge-based systems, and AI methods that support decision making, like machine learning, Bayesian networks and association rules. Prereq: MS in C.S.E. or I.S. **Semester Hours:** 3 to 3

ISMG 7002 - Computer Security

A broad overview of computer security, roughly divided into three unequal components: a) the history of codes and ciphers; b) basic cryptographic techniques, for example, symmetric cryptography, authentication techniques, and asymmetric cryptosystems, and: c) applications to current and future computer-related technologies, for example, network security, wireless communication, quantum cryptography, and more. Prereq: CSCI 5451. Cross-listed with CSCI 7002. **Semester Hours:** 3 to 3

ISMG 7200 - Advances In Management Information Systems

Provides an introduction to research methodologies engaged in Management Information System Research, including measurement, sampling, survey research, experiments, quasi-experiments and some qualitative research methods. Prereq: admission into the CSIS Ph.D. program and knowledge of basic statistics. Cross-listed with CSCI 7200. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

ISMG 7210 - Topics In Analytical Research In Management Information Systems

Provides a detailed coverage of selected analytical research in information systems. Prereq: Admission to the CSIS Ph.D. program. Cross-listed with CSCI 7210. **Semester Hours:** 3 to 3

ISMG 7211 - Topics In Behavioral and Organizational Research In Management Information Systems

Provides a detailed coverage of selected behavioral and organizational research in information systems. Prereq: admission to the CSIS Ph.D. program. Cross-listed with CSCI 7211. **Semester Hours:** 3 to 3

ISMG 7220 - Research methods: Design and Analysis

Research methods: Design and Analysis. Topics include: research design, approaches to gathering data; sampling methods; linear multivariate analysis methods emphasizing structural equations models; and a brief survey of other methods such as cluster analysis, multidimensional scaling, methods such as neural nets, CART and/or genetic algorithms. While much of the material is of general interest, the course emphasizes methods and situations to prepare students in the CS/IS Ph.D. program for research in their field(s). The course includes student projects involving the analysis of data using appropriate software, whose results are presented to the class. Prereq: BUSN 6530 (or equivalent) and either Ph.D. student status or permission of instructor. Cross-listed with DSCI 6220. **Semester Hours:** 3 to 3

ISMG 7551 - Parallel and Distributed Systems

Examines a range of topics involving parallel and distributed systems to improve computational performance. Topics include parallel and distributed programming languages, architectures, networks, algorithms and applications. Prereqs: Graduate Standing. Cross-listed with CSCI 7551. **Semester Hours:** 3 to 3

ISMG 7552 - Advanced Topics in Parallel Processing

Examines the advances of sequential computers for gaining speed and application of these techniques to high-speed supercomputers of today. Programming methodologies of distributed and shared memory multiprocessors, vector processors and systolic arrays are compared. Performance analysis methods for architectures and programs are described. Cross-listed with CSCI 7552. **Semester Hours:** 3 to 3

ISMG 7574 - Advanced Topics in Operating Systems

Covers the advanced topics in operating systems by examining functionality and performance issues in CPU Scheduling, communications, distributed file systems, distributed operating systems, shared-memory multiprocessors and real-time operating systems. In addition to studying papers, reviews, and presentations, students carry out a semester long team project within the scope of one of the above topics. Prereqs: CSCI 3453 or CSCI 5573. Cross-listed with CSCI 7574. **Semester Hours:** 3 to 3

ISMG 7582 - Artificial Intelligence

Approaches to design of systems for solving problems usually solved by humans, especially those related to intelligent decision making. Emphasis on various types of knowledge representation. Cross-listed with CSCI 7582. **Semester Hours:** 3 to 3

ISMG 7654 - Algorithms For Communication Networks

Algorithmic and mathematical underpinnings of communication networks. A taxonomy of data-packet networks depending on modes of communication: Fixed-Interconnection networks, radio networks and multiple-access channel. Algorithms to implement packet routing, broadcasting and conflict resolution. Prereq: CSCI 5451. Cross-listed with CSCI 7654.

Semester Hours: 3 to 3

ISMG 7765 - Computer Networks

An in-depth study of active research topics in computer networks. Topics include: Internet protocols, TCP/UDP, congestion and flow control, IP routings, mobile IP, P2P overlay networks, network security, performance, and other current research topics. Prereq: Graduate Standing.

Cross-listed with CSCI 7765. **Semester Hours:** 3 to 3

ISMG 7799 - Topics in Network Computing

Studies the active research topics in network based computing such as Cluster, Grid computing, P2P Computing, Pervasive Computing. Workflow system and Cloud Computing. Students will study key papers in the literature, and submit a research term project. Prereq: Graduate Standing. Cross-listed with CSCI 7799. **Semester Hours:** 3 to 3

ISMG 7800 - Special Topics

A variety of advanced topics are offered at the Ph.D. level in this course. Consult the current 'Schedule Planner' for semester offering. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

ISMG 7840 - Independent Study: Pre-Dissertation Research

Conduct pre-dissertation research under the supervision of a faculty member. Prereq: BUSN 6530. **Semester Hours:** 1 to 6

ISMG 8990 - Dissertation Development

Supports development of a dissertation in conjunction with a student's advisor. Prereq: Completion of first year and second year papers (ISMG 7840). **Semester Hours:** 1 to 15

Initial Teacher Education Courses (ITED)

ITED 4700 - Instructional Teamwork Academy

The academy consists of four modules of varying length for a total of 15 clock hours of instructional time. The course consists of introductory material regarding teamwork, delineation of roles and responsibilities, classroom instruction, and behavior management.

Semester Hours: 1 to 1

ITED 4710 - Student Supervision Academy

The focus of the 15 clock hour academy is the effective management of large groups of students on playgrounds, in lunchrooms, halls, locker rooms, parking lots where buses are loading, on buses and in other instructional settings. **Semester Hours:** 1 to 1

ITED 4720 - Interpersonal Skills Academy

The focus of this 15 hour academy is on developing effective interpersonal skills that are necessary for working as part of a team. Throughout this academy importance of issues of diversity based on culture, experience and gender in communication and conflict resolution processes is highlighted. **Semester Hours:** 1 to 1

ITED 4730 - Personal Growth and Development Academy

This 15 contact hour academy covers self-appraisals, participation in the evaluation process and plan for continued professional growth and development, stress-management strategies and using creativity in dealing with problematic situations. **Semester Hours:** 1 to 1

ITED 4740 - Behavior Management

This academy gives the paraeducator knowledge and skill in instructional methods that support students who have challenging behaviors in inclusive classrooms, resource rooms, self-contained classrooms, domestic settings, and in the community. These modules focus on the interactions that paraeducators have with students whose behaviors are challenging and on the role they play in assisting the professional members of their team with behavior challenges.

Semester Hours: 1 to 1

ITED 4750 - Instructional Strategies Academy

This academy gives the paraeducator knowledge and skills in analyzing the teaching environment and individual student needs for the particular level of support, degree of adaptation or accommodation or modification and instructional method that would best facilitate learning. **Semester Hours:** 1 to 1

ITED 4760 - Instructional Technology Academy

This 15 contact hour academy is intended to provide paraeducators with skills in operating typical school-wide technologies. The focus is on examining the types of technology used daily, as well as those types that they may not currently have skills in using but which can broaden their repertoire of available skills. **Semester Hours:** 1 to 1

ITED 4770 - Vocabulary and Comprehension

Paraeducators are provided with the skills needed to assist classroom teachers in meeting literacy needs of students in the areas of vocabulary and comprehension. Skills applicable to assisting diverse populations such as special education, Title 1, ELA, and General Education.

Semester Hours: 1 to 1

ITED 4780 - Assisting with Phonemic Awareness and Phonics in the Classroom

This academy provides the paraeducator with skills and techniques needed to assist literacy needs of diverse populations of students with phonemic awareness and phonics as it relates to the early, emergent and fluent reader. **Semester Hours:** 1 to 1

ITED 4790 - Assisting with Reading Fluency in the Classroom

This academy provides the paraeducator with skills needed to assist literacy needs of diverse populations of students in the area of reading fluency. It covers important fluency concepts and terms and the use of a variety of research-based instructional techniques that improve fluency at the word, phrase, sentence and connected text levels. **Semester Hours:** 1 to 1

ITED 4800 - Grades K-4 Mathematics

This academy is designed to provide paraeducators with the skills and knowledge needed to assist students, grades K through four, with mathematics skills taught in the classroom. The course content is designed and adapted from standards recommended by the National Council of Teachers of Mathematics. It includes the specific skill building area of number sense, computational techniques, algebraic thinking, geometry, measurement, data and probability as they apply to grades K-4 learners. **Semester Hours:** 1 to 1

ITED 4810 - Number Theory and Rational Numbers

This academy provides paraeducators with the skills and knowledge needed to assist students with specific mathematics skills typically taught in grades five through eight. This academy solidifies the concepts learned in assisting with K-4 math and provides a base for assisting with high school mathematics. It includes the specific skill building areas of number sense; computational techniques for fractions, decimals and percents and their related applications as they apply to intermediate and middle school learners. The course content is designed and adapted from the standards recommended by the National Council of Teachers of Mathematics.

Semester Hours: 1 to 1

ITED 4820 - Algebraic Concepts and Spatial Reasoning

This academy provides paraeducators with the skills and knowledge needed to assist students, grades 5-8, with the mathematics skills taught in the classroom. The course content is designed and adapted from standards recommended by the National Council of Teachers of Mathematics. It includes the specific skill building areas of real number building properties; graphical representations; algebraic concepts and problem solving; data and probability; and spatial reasoning skills as they apply to intermediate and middle school learners. **Semester Hours:** 1 to 1

ITED 5022 - Learning and Classroom Management Strategies for Secondary Schools

Provides knowledge to create and manage classrooms conducive to the well-being and learning of a diverse student population. Included are instructional strategies for addressing content standards, managing curriculum, instruction, assessments, classrooms, **Semester Hours:** 3 to 3

ITED 5023 - Literacy Strategies for Secondary Schools

Provides knowledge and practice using specific literacy methods and assessment, to enhance content learning, and meet reading and writing standards. Instructional strategies for special needs and language-minority students are also emphasized. **Semester Hours:** 3 to 3

ITED 5025 - Reading Instruction and Assessment K-5

Using and expanding upon background knowledge from prerequisites, participants learn about specific reading instruction and assessment routines and techniques. Through guided in-school placements, student's link course readings, discussion and practice, f **Semester Hours:** 3 to 3

ITED 5800 - Special Topics in Education

Addresses a specific topic that is current and relevant to the needs of a specific group of educators and/or an educational context. **Semester Hours:** 1 to 4

ITED 5801 - Special Topics in Education

Semester Hours: 1 to 4

ITED 5802 - Special Topics in Education

Semester Hours: 1 to 4

ITED 5803 - Special Topics in Education

Semester Hours: 1 to 4

ITED 5804 - Special Topics in Education

Semester Hours: 1 to 4

ITED 5805 - Special Topics in Education

Semester Hours: 1 to 4

ITED 5840 - Independent Study

Semester Hours: 1 to 4

Language Literacy & Culture Courses (LALC)

LALC 5010 - ELA Foundations

The course is an introduction to the historical and legal foundations of bilingual and English as a second language education at the federal, state, and district levels. Course participants will examine the ways in which language education history at the **Semester Hours: 1 to 1**

LALC 5055 - Linking Assessment and Instruction in Language and Literacy, Part I

This is the first of a two-part sequence on linking assessment to curriculum and instruction. Focus is on both monolingual speakers of English and second language learners. Assessments include both oral and written language (reading and writing) as well a **Semester Hours: 3 to 3**

LALC 5060 - Linking Assessment and Instruction in Language and Literacy, Part II

This is the second of a two-part sequence on linking assessment to curriculum development and instruction. The focus is on both monolingual speakers of English and second language learners. Prereq: LALC 5030, 5055 and 5140. **Semester Hours: 3 to 3**

LALC 5100 - Theories and Methods of Second Language Teaching

Provides an overview of approaches to second language teaching. Emphasis is on development of a personal philosophy of second language teaching. Topics covered include first and second language acquisition, contributions of psychology and linguistics, and **Semester Hours: 3 to 3**

LALC 5724 - Colorado Writing Project I

Teachers will experience participating in writers' workshop, writing several pieces, taking them through revision and workshop groups. Teachers will also read, discuss, and respond to texts about teaching writing and preparing students to take state writ **Semester Hours: 4 to 4**

LALC 5726 - Colorado Writing Project II

Teachers will experience participating in writers' workshop, writing several pieces, taking them through revision and workshop groups. Teachers will also read, discuss, and respond to texts about teaching writing and preparing students to take state writ **Semester Hours: 4 to 4**

LALC 5728 - Colorado Writing Project III

Teachers will experience participating in writers' workshop, writing several pieces, taking them through revision and workshop groups. Teachers will also read, discuss, and respond to texts about teaching writing and preparing students to take state writ **Semester Hours: 4 to 4**

Latin Courses (LATN)

LATN 1010 - Elementary Latin I

Introduces grammar, syntax, and vocabulary of Classical Latin, with an emphasis on preparing students to read Latin while improving English grammar and vocabulary skills. Two semesters of Latin may be used to fulfill the CLAS language competency requirement. **Semester Hours:** 5 to 5

LATN 1020 - Beginning Latin II

Completes the presentation of basic Latin grammar, syntax and vocabulary. Introduces students to Latin literature through readings in select authors adapted to meet the needs of beginning students. Prereq: LATN 1010 or equivalent. **Semester Hours:** 5 to 5

LATN 1050 - Vocabulary for Professionals

Studies English words derived from Latin and Greek by analyzing their component parts (prefixes, stems, and suffixes). Cross-listed with ENGL 1050. **Semester Hours:** 3 to 3

LATN 1100 - Building Vocabulary From Greek and Latin Words

Students learn to decipher unfamiliar words by breaking them down to their Latin or Greek roots. Prereq: None. **Semester Hours:** 3 to 3

LATN 2010 - Intermediate Latin I

Introduces advanced Latin grammar, vocabulary, syntax, and stylistics of Latin prose via readings in Caesar, Cicero and Livy. Includes review of basic Latin grammar, plus introduction to Latin prose composition and Latin rhetoric. Emphasis on historical, cultural, social context of authors and works. Prereq: LATN 1020 or equivalent. **Semester Hours:** 3 to 3

LATN 2020 - Intermediate Latin II

(Continuation of LATN 2010.) Completes the presentation of advanced Latin grammar, vocabulary, syntax, and stylistics of Latin prose. Continues the study of Latin prose composition and Latin rhetoric with emphasis on historical, cultural, and social context of authors and works. Prereq: LATN 2010 or equivalent. **Semester Hours:** 3 to 3

LATN 2840 - Independent Study

Semester Hours: 1 to 3

LATN 3000 - Medical Terminology

The course enables students to understand medical terms by learning the Greek and Latin word elements that form these terms. **Semester Hours:** 3 to 3

Literacy, Language, & Culturally Respectful Teaching Courses (LCRT)

LCRT 1111 - Introduction to College Literacy for Migrant Populations

An introductory course designed to provide a college-level reading/writing and artistic experience for high school aged migrant student populations. Students are apprenticed in philosophic, social scientific and legal modes of reasoning and writing in con **Semester Hours: 3 to 3**

LCRT 5010 - Foundations of Language

Designed for veteran and novice teachers to gain an understanding of the broad fields of literacy and language education. Participants examine key educational philosophies based on the writings of important scholars in the field, on topics such as the po **Semester Hours: 3 to 3**

LCRT 5020 - Workshop in Literacy and Language Teaching

This course involves critical examination of reading process and instruction. Teachers develop an understanding of the principles of sociopsycholinguistic theory in learning and teaching. Organization options for reading instruction for native and non-nat **Semester Hours: 3 to 3**

LCRT 5028 - Adolescent Literacy, Part I

Focuses on supporting adolescents' developing literacy understandings across content areas in the upper elementary grades through high school. Importance is placed on putting new teaching practices in place. Attention is given to both reading and writing **Semester Hours: 3 to 3**

LCRT 5029 - Adolescent Literacy, Part II

The second in a sequence of courses focusing on adolescents' developing literacy understandings across content areas in upper elementary grades through high school. Attention is given to comprehension and critical thinking including revision and editing s **Semester Hours: 3 to 3**

LCRT 5050 - Linguistic and Cultural Issues in Linking Assessment and Instruction

This course provides general orientation to the assessment of linguistically and culturally diverse students. Focus is on using assessment to guide and instruction and includes examination of assessment of oral and written language, attitude and classroo **Semester Hours: 3 to 3**

LCRT 5055 - Linking Assessment and Instruction in Language and Literacy

Focus is on both monolingual speakers of English and second language learners. Assessments include both oral and written language (reading and writing) as well as attitudinal measures and classroom arrangements. **Semester Hours: 3 to 3**

LCRT 5080 - Teachers as Readers and Writers

Teachers engage in experiences designed to expand and improve their own literacy interests, abilities, and attitudes. Literacy experiences include readers' workshop, writers' workshop, literature studies, and authors' circles. In addition, teachers reflec **Semester Hours: 3 to 3**

LCRT 5140 - Multicultural Education

Develops an understanding of the pluralistic nature of U.S. society and the role of the school within this social context. Examines the legal and cultural history of language education in Colorado and the U.S. as well as the impact of changing demographi **Semester Hours:** 3 to 3

LCRT 5150 - Culture of the Classroom

Provides a classroom-focused examination on linguistic and cultural diversity. The legal history of language and literacy education in the U.S., Colorado, and local school districts is studied with a focus on implications for instructional practice. Par **Semester Hours:** 3 to 3

LCRT 5200 - Theory and Methods of English Education

Focuses on teaching/learning theories and practical classroom strategies for teaching English Language Arts to adolescent learners in middle school, junior high school, and high school classes. Cross-listed with UEDU 4200 and 5200. **Semester Hours:** 3 to 3

LCRT 5201 - Adolescent Literature

Reading and evaluating fiction and non-fiction appropriate for students in middle and senior high school. Emphasis is on modern literature written for students from a variety of ethnic backgrounds. This course is also appropriate for teachers working with **Semester Hours:** 3 to 3

LCRT 5210 - Literacy Development Pre K-3rd Grade

Focuses on children's developing literacy understandings and proficiencies beginning in the preschool years. Attention is given to language development, assessment, and instruction in pre-kindergarten through third grade, partnerships with community liter **Semester Hours:** 3 to 3

LCRT 5220 - Literacy Routines and Assessment, Pre K-3rd Grade

This course will focus on the routines and practices which allow for student specific instruction and assessment in the Early Literacy classroom. Participants will examine and critique current literacy routines and assessments needed to best meet the need **Semester Hours:** 3 to 3

LCRT 5230 - Early Literacy Instruction

Participants will examine Pre K-3rd grade literacy instruction to understand how to meet the needs of young students. The course will analyze instructional practices for young gifted, special needs and English language learning students to best meet the n **Semester Hours:** 3 to 3

LCRT 5700 - Language and Literacy Portfolios: Development, Reflection and Empowerment

In this course, teachers learn: (1) to compile and assess student portfolios to inform instruction and communicate progress, and (2) to experience developing personal portfolios with particular focus on self-reflection and empowerment over the course of t **Semester Hours:** 3 to 3

LCRT 5710 - Primary Literacy: Pre-3rd Grade

Provides teachers with a basic understanding of reading and writing development in preschool and early primary grades. Specific strategies are considered for using and teaching reading and writing in early primary grades. **Semester Hours:** 3 to 3

LCRT 5720 - Writing: Process, Development, and Teaching Grades 3-12

This course presents current theories of writing development as they relate to classroom practices. Participants in the course will use these theories to help analyze the writings of students in real classrooms. Understanding of the theories will also be **Semester Hours:** 3 to 3

LCRT 5730 - Language and Literacy Across the Curriculum

Explores the value and use of reading and writing as tools for learning across the curriculum on a K-12 basis. Specific needs and strategies for assisting at-risk and second language learners are also discussed. **Semester Hours:** 3 to 3

LCRT 5750 - Children's Literature in Spanish

Taught in Spanish, this course presents children's literature from Spanish speaking countries and Spanish speaking authors, along with teaching methodologies and avenues of further research in the field. Prereq: senior-level proficiency in Spanish. **Semester Hours:** 3 to 3

LCRT 5770 - Effective Literacy Instruction for Second Language Learners

Students explore and critique various methods and strategies for teaching reading and writing to non-native English speakers. Students acquire a foundation in written language acquisition for both first and second language learners. **Semester Hours:** 3 to 3

LCRT 5780 - Connecting Cultures Through Literature

This course looks at the issue of multicultural literacy for K-8th grade and how children's and young adult literature can be used to create a high quality multicultural curriculum which enhances literacy development and covers all the content areas. **Semester Hours:** 3 to 3

LCRT 5790 - Children's Literature Through the Ages

A basic children's literature course which looks at the historical development of children's literature. This course also looks at various genre in children's literature, how to critique and choose literature for instruction and children's literature award **Semester Hours:** 3 to 3

LCRT 5795 - Current Children's Literature

The focus of this course is on children's literature from the past 10 years, including established and newer authors and illustrators. Various genres will be covered, as participants learn to critique children's literature and how to choose books for inst **Semester Hours:** 3 to 3

LCRT 5800 - Sociolinguistics: Language Variation and its Implications for Teaching

Provides an introduction to the field of educational sociolinguistics and research of classroom discourse. Students are introduced to the collection and analysis of oral and written language in educational contexts. Basic concepts and key issues regarding **Semester Hours:** 3 to 3

LCRT 5810 - Wksp: Lang Acq & Development

Provides students with an opportunity to examine current research on language acquisition and development, and to apply their knowledge to the learners in their teaching situation. The course focuses on language development and use in educational settings **Semester Hours:** 3 to 3

LCRT 5830 - Wrkshp-Multicultural EDU

Provides students with the experiences in multicultural methodology training. How to utilize community members, para-professionals, and peers to facilitate learning in a multicultural environment. **Semester Hours:** 3 to 3

LCRT 5831 - Reading Recovery: Observation Survey

A workshop class which introduces the participants to an understanding of literacy acquisition and prepares them to implement the Reading Recovery Program within their school or district. Prereq: reading and language arts methods. A minimum of three years **Semester Hours:** 2 to 2

LCRT 5835 - Special Topics: Literacy and Language

Specific topics vary but will include the exploration of literacy development and instruction in particular populations or with specific focuses. **Semester Hours:** 0.5 to 3

LCRT 5840 - Independent Study: LCRT

Semester Hours: 1 to 4

LCRT 5911 - Reading Recovery Practicum: Early Intervention (Theory, Procedures and Practice)

A field experience which extends the participants' understanding of literacy acquisition and prepares them to implement the Reading Recovery Program within their school or district. Prereq: LALC 5831. **Semester Hours:** 3 to 3

LCRT 5920 - Readings in Multicultural

Provides students with an opportunity to examine the current literature as it relates to trends in contemporary issues in the area of multicultural education. **Semester Hours:** 3 to 3

LCRT 5925 - Selected Readings: Advanced Study in Literacy and Language

Prereq: written permission of instructor. **Semester Hours:** 1 to 3

LCRT 6090 - Research Seminar

An advanced course which focuses on specific issues in language, language acquisition and language teaching. **Semester Hours:** 3 to 3

LCRT 6713 - Intro To Language Policy

This course examines the legal, ideological, and historic foundations of language policies. The course also review connections with related topics such as language rights, language and power, and issues from the sociology of language such as language loyalty **Semester Hours:** 3 to 3

LCRT 6840 - Independent Study: LCRT

Semester Hours: 1 to 4

LCRT 6910 - Seminar and Practicum in Literacy and Language, K-6

Provides opportunities for advanced students in the M.A. program to apply concepts acquired in course work and other educational experiences to specific situations. Students will work in schools, classrooms, administrative offices, or community centers (a **Semester Hours:** 3 to 3

LCRT 6911 - Seminar and Practicum in Literacy and Language, 7-12+

Provides opportunities for advanced students in the M.A. program to apply concepts acquired in course work and other educational experiences to specific situations. Students will work in schools, classrooms, administrative offices, or community centers (a **Semester Hours:** 3 to 3

LCRT 6913 - Reading Recovery: Practicum

A practicum which refines the participants' understanding of literacy acquisition and finalizes preparation to implement the Reading Recovery Program within their school/district. Prereq: LALC 5831 and 5911. Reading and language arts methods. A minimum of three years primary teaching or reading teaching experience. **Semester Hours:** 4 to 4

LCRT 6915 - Seminar and Practicum in Literacy Professional Development

This final practicum is designed for teachers to enhance their education as reading professionals in two ways. First, by continuing to reflect on and analyze their own teaching, participants will deepen their understanding of how to assess and design inst **Semester Hours:** 3 to 3

LCRT 6950 - Master's Thesis

Semester Hours: 4 to 4

Landscape Architecture Courses (LDAR)

LDAR 5501 - Landscape Architecture Design Studio 1

Introduction to basic strategies, methods and techniques of landscape architectural design with emphasis in theory, history, analysis and criticism. First in a three studio course sequence.

Semester Hours: 6 to 6

LDAR 5502 - Landscape Architecture Design Studio 2

Strategies, methods and techniques of landscape architectural design with emphasis in more complex issues, design processes and development and the application of theory and research. Second in a three studio course sequence. Prereq: LDAR 5501 or permission of department chair.

Semester Hours: 6 to 6

LDAR 5503 - Landscape Architecture Design Studio 3

Problem-based studio covering the approaches, technologies and means for planning and designing sites to accommodate an intensive development program on a particular site within a regional context. Covers issues definition, site analysis, programming, development of design strategies, evaluation site planning, placemaking, regionalism and communication. Prereq: LDAR 5501 and LDAR 5502 or permission of department chair.

Semester Hours: 6 to 6

LDAR 5510 - Graphic Media in Landscape Architecture

Introduces basic principles and methods associated with analog and digital drawing-plan, sections, perspectives, color, shading, composition and projection.

Semester Hours: 3 to 3

LDAR 5521 - History of Landscape Architecture

Investigates architectural thought from antiquity to the present. Begins with a review of Greek ideals and proceeds -- through an appreciation of landscape and nature as essential cultural constituents -- with a survey of major themes such as Renaissance Humanism, Enlightenment, Rationalism, Romantic Historicism, Neo-Medievalism, the varieties of Modernism, Neo-Eclecticism and the most recent directions in landscape and garden design.

Semester Hours: 3 to 3

LDAR 5532 - Landform Manipulation

Focuses on the fundamental technical aspects of landscape architectural design and implementation of related topography, grading and drainage design, landform manipulation, earthwork calculations, and road alignment. Note: course is to be taken with LDAR 6641, Computer Applications in Landscape Architecture.

Semester Hours: 3 to 3

LDAR 5572 - Landscape Ecology

Focuses on the study of physiography, cultural factors, and aesthetic criteria in relation to landscape, spatial organization, and urban and regional structure. Emphasizes continuity and change in an ecology of both natural and man-made landscape.

Semester Hours: 3 to 3

LDAR 5573 - Applied Advanced Landscape Ecology Workshop

Issues of sustainability and designing or planning at multiple and temporal scales (watershed, regional, site) provides basis for advanced studies in ecological-based design, planning, and restoration to accomplish project goals with minimal ecological impact. Prereq: LDAR 5572.

Semester Hours: 3 to 3

LDAR 6520 - Landscape Architecture in Other Cultures

Various studies of landscape architecture and urbanism in foreign countries. **Semester Hours:** 1 to 9

LDAR 6604 - Landscape Architecture Design Studio 4

Advanced landscape architecture design studio covering situations of urbanization and change of various scales and complexities. This is the first in a two studio course sequence. Prereq: LDAR 5501, 5502, 5503 or permission of department chair. **Semester Hours:** 3 to 3

LDAR 6605 - Landscape Architecture Design Studio 5

Advanced landscape architecture design studio covering situations of urbanization and change of various scales and complexities. This is the second in a two studio course sequence. Prereq: LDAR 5501, 5502, 5503, 6604 or permission of department chair. **Semester Hours:** 3 to 3

LDAR 6606 - Landscape Architecture Design Studio 6

Advanced landscape architecture design studio covering situations of urbanization and change of various scales and complexities. This is the first in a two studio course sequence. Prereq: LDAR 5501, 5502, 5503, 6604, 6605 or permission of department chair. **Semester Hours:** 6 to 6

LDAR 6607 - Landscape Architecture Design Studio 7

Advanced landscape architecture design studio covering situations of urbanization and change of various scales and complexities. This is the second in a two studio course sequence. Prereq: LDAR 5501, 5502, 5503, 6604, 6605, 6606 or permission of department chair. **Semester Hours:** 3 to 3

LDAR 6608 - Landscape Architecture Design Studio 8

Advanced design studio that reflects topical situations in landscape architectural practice and/or applied research interests of instructor. This is the first in a two studio sequence. Prereq: LDAR 5501, 5502, 5503, 6604, 6605, 6606, 6607 or permission of department chair. **Semester Hours:** 3 to 3

LDAR 6620 - Landscape Architecture Theory and Criticism

Focuses on exploring and assessing current state of theory in landscape architecture and related design disciplines and the ideas undergoing contemporary design approaches. Narrative and explanatory theories are the objects of study. Emphasis is placed on history and pedagogic theories and their theories and relationships to other disciplines such as art, ecology, geography, architecture and anthropology. **Semester Hours:** 3 to 3

LDAR 6622 - Visual Quality Analysis

Introduces a range of philosophies, methods, and techniques in visual landscape analysis. Emphasis is placed on application of methods and techniques, urban and regional context and scale, as well as visual impact assessment and simulation. **Semester Hours:** 3 to 3

LDAR 6624 - The Built Environment in Other Cultures I: Research Design

Intends to broaden students' perspectives by asking them to examine design within another culture. Students prepare a proposal of study including a statement of the problem to be addressed, the type of field research to be undertaken, and the nature of the report to be produced. Cross-listed with ARCH 6624. **Semester Hours:** 3 to 3

LDAR 6625 - Landscape Architecture Field Studies

Critical field evaluation of built works of landscape architecture including field measurement, mappings, sketches, photography, written evaluations and applied projects. **Semester Hours:** 3 to 3

LDAR 6631 - Landscape Construction Materials and Methods

Develops understanding of detailed design processes, construction materials and selection of construction methods and documents. Typically taken with LDAR 6605 and 6606 (LDAR Design Studios 5 and 6). **Semester Hours:** 3 to 3

LDAR 6632 - Site Planning - Environment and Society

Sites are relationships within environmental and social settings. Therefore a design approach should be primarily ethical, secondarily technical. This course examines the implications of site through landscape and planning methodologies, the conceptual c **Semester Hours:** 3 to 3

LDAR 6641 - Computer Applications in Landscape Architecture

Introduces digital technologies and methods commonly used in Landscape Architecture including primarily CADD, visualization, simulation, graphic design, GIS and other emerging applications. Includes hands-on exercises. **Semester Hours:** 3 to 3

LDAR 6642 - Landscape Architecture Digital Design Workshop

Introduces surveys, and provides hands-on experiences in the disciplines, principles, software, and theories for engaging digital design in landscape architectural practice and research. Prereq: LDAR 6641. **Semester Hours:** 3 to 3

LDAR 6670 - Plants in Design

Focuses on the study of design methods used in landscape architecture. Formal design principles, spatial sequencing, and plant functions are applied in design studies, based on botanical aesthetic traits and physical requirements of a wide variety of plant material. **Semester Hours:** 3 to 3

LDAR 6671 - Plant Material Identification

Students learn the names, characteristics and site requirements of plants including trees, shrubs, ground covers and perennials commonly used in built works in the Colorado region. Methods are transferable to other regions. **Semester Hours:** 3 to 3

LDAR 6686 - Special Topics: Landscape Architecture

Various topical concerns are offered in landscape architecture history, theory, elements, concepts, methods, implementation strategies, and other related areas. **Semester Hours:** 3 to 3

LDAR 6710 - Landscape Representation

Focuses on developing understanding of various advanced analog and digital techniques for application in landscape analysis and design. Prereq: LDAR 5510. **Semester Hours:** 3 to 3

LDAR 6711 - Advanced Landscape Architectural Graphics Workshop

Focuses on developing expertise in various drawing, reprographics, digital, and photographic techniques used in practice for enhanced effectiveness in graphic communication. Prereq: LDAR 5510. **Semester Hours:** 3 to 3

LDAR 6712 - Green Roofs/Living Systems

The primary objective for this seminar is to give students a general understanding of green roof systems, vegetated roofs above underground architecture and vertical vegetated systems. The seminar will engage in critiques and discussions using international, national and local case studies, covering history, typologies, function, design, master planning and costs. **Semester Hours:** 3 to 3

LDAR 6720 - Finding Common Ground

Focuses on principles and societal variables that influence the structure of urban neighborhood space through research application. Prereq: LDAR 6640. **Semester Hours:** 3 to 3

LDAR 6721 - Regionalism

Explores environmental and cultural factors that shape regionally responsive design. Prereq: LDAR 5521 and 6620 or permission of instructor. **Semester Hours:** 3 to 3

LDAR 6722 - Contested Terrains

Explores the different processes, factors and forces and determines and influences occupation, land use and built form through the phenomena of conflict and contestation. Design is inherently located within the disputes and discourses involving landscape as location and resource. **Semester Hours:** 3 to 3

LDAR 6723 - Cinema and the Landscape

Explores landscapes in conjunction with cinema, examining the processes, images, stereotypes, and myths associated with the historical development of film and the creation of film theory within a context of space, race and representation. Interconnects film theory and criticism and

landscape architecture, through the creation of short digital essays that examine the complexity of issues related to spatial meaning. **Semester Hours:** 3 to 3

LDAR 6724 - American Landscape Arch

Introduces the origins, theories and practitioners of landscape architecture in the United States from the founding of the ASLA in 1899 through the present. This period drew from many realms, including the arts, land ethics, political ideologies, and social agendas. The material covered offers a base for understanding trends and ideas embedded within or underpinning the contemporary American landscape. Prereq: LDAR 5521 **Semester Hours:** 3 to 3

LDAR 6725 - Design Communications

In this seminar students will learn research and writing skills to produce articles in clear, readable, and substantial prose, from academic criticism to general interest reviews; writing forms and styles, including essays, reports, award applications and writing for oral presentation; and editing basics. Prereq: History and/or theory of landscape architecture or architecture. **Semester Hours:** 3 to 3

LDAR 6730 - International Studies Preparation

The course will prepare students to go to China, for 10-day International Summer School, 5-week China Summer Urban Design Joint Studio, 9-month Gensler Internship, and 1-year LA Dual Degree program. Topics include historic, geographic and cultural issues, and language lessons. Cross-listed with ARCH 6730, URBN 6730, and URPL 6730. **Semester Hours:** 1 to 3

LDAR 6750 - Professional Practice

Focuses on studies in the professional practice of landscape architecture and related professions and case problems in initiating and managing a professional practice. Explores the essential elements of professional practice and equips students with the fundamental knowledge and skills requisite to an understanding of and participation in the conduct of practice in landscape architecture. Covers organization of the landscape office, professional services of landscape architects, fee structures and fee management, contracts, legal rights and responsibilities, management, marketing, and delivery of professional services. **Semester Hours:** 3 to 3

LDAR 6840 - Independent Study

Studies initiated by students or faculty and sponsored by a faculty member to investigate a special topic or problem related to landscape architecture or urban design. Prereq: Permission of instructor. **Semester Hours:** 1 to 3

LDAR 6910 - Teaching Assistantship

Work with a faculty member in a course to assist with course preparation and delivery. Prereq: Permission of program chair and instructor. **Semester Hours:** 3 to 3

LDAR 6930 - Landscape Architecture Internship

Designed to provide professional practice experience. The student is placed in a landscape architectural and/or design office by the College and receive credit instead of pay. Must complete the second-year level before taking this course. **Semester Hours:** 3 to 3

LDAR 6949 - Research Tools & Methods

Introduces the thesis in landscape architecture and establishes the scholarly basis for the research and construction of a Master's Thesis project. This course will provide the student with the research practices and methodologies to develop the scholarship and products required to produce a Thesis Project Proposal. Completion of this course is a prerequisite for the student to submit the Thesis Proposal for departmental approval to continue with the remaining 9 credits of thesis to be undertaken in their final semester in the program. Cross-listed with ARCH 6473.

Semester Hours: 3 to 3

LDAR 6950 - Thesis Research

The student works closely with a landscape architecture faculty advisor and thesis committee to develop the thesis proposal through focused research. Research might entail both written and graphic inquiry leading to specific products with conclusive ideas that set the stage for the completion of the thesis in the following semester. Part of the Landscape Architecture Thesis sequence. Prereq: LDAR 6949 and permission of department chair. **Semester Hours:** 3 to 3

LDAR 6951 - Landscape Architecture Thesis

The Landscape Architecture thesis is expected to advance the field of landscape architecture by offering new insights into aspects of design, technology, history or professional principles. In this course, the student continues to work independently, but closely with a landscape architecture faculty advisor and thesis committee to complete the thesis. The thesis might take on different final forms (written volume, drawings, maps, digital images), depending on the subject inquiry. For further information on the Landscape Architecture Thesis Track consult the Landscape Architecture Thesis Guidelines. Prereq: LDAR 6949 and 6950. **Semester Hours:** 6 to 6

Mathematics Courses (MATH)

MATH 1009 - Computer-Based Algebraic Problem Solving

A laboratory-based problem solving course focused on personal computing applications. Topics include general problem solving techniques, deductive reasoning, elementary probability, computer algebraic software, optimization, graphical analysis, systems of equations, spreadsheets, functions, descriptive statistics, linear programming and elementary programming logic. Prereq: basic high school algebra and some familiarity with Microsoft Windows. **Semester Hours:** 3 to 3

MATH 1010 - Mathematics for the Liberal Arts

Designed to give liberal arts students the skills required to understand and interpret quantitative information that they encounter in the news and in their studies, and to make quantitatively-based decisions in their lives. Topics include a survey of logic and analysis of arguments, identifying fallacies in reasoning, working with numbers and units, linear and exponential relations and essentials of probability and statistics. The emphasis is on applications with case studies in economics, finance, environmental sciences, health, music and science. Prereq: three years of high school mathematics. **Semester Hours:** 3 to 3

MATH 1070 - Algebra for Social Sciences and Business

Topics in algebra designed for students who intend to take business calculus. Functions, graphs, scatter plots, curve-fitting, solving systems of equations, polynomial and rational functions, and selected other topics. Note: Graphics calculator required. No co-credit with MATH 1110 or MATH 1130. Prereq: intermediate algebra and satisfactory score on the placement exam. **Semester Hours:** 3 to 3

MATH 1080 - Polynomial Calculus

A one-semester course in single-variable calculus. Topics include limits, derivatives, differentiation rules, integration and integration rules. Emphasis is on applications to business and social sciences. Note: No knowledge of trigonometry is required. **Semester Hours:** 3 to 3

MATH 1110 - College Algebra

Topics in algebra designed for students who intend to take the calculus sequence. Functions, domains, ranges, graphs, data scatter plots and curve fitting, solving equations and systems of equations, polynomial functions, rational functions, and selected other topics. Graphic calculators and/or computer algebra systems are used extensively. Applications are emphasized. Note: No co-credit with either MATH 1070 or 1130. Prereq: intermediate algebra and satisfactory score on the placement exam. **Semester Hours:** 3 to 3

MATH 1111 - Freshman Seminar

Semester Hours: 1 to 3

MATH 1120 - College Trigonometry

Topics in trigonometry, analytic geometry, and elementary functions designed for students who intend to take the calculus sequence. Angles and trigonometry functions of acute angles, analytic trigonometry, fundamental trigonometric functions and identities including hyperbolic trigonometry, parametric equations, and polar coordinate system. Graphic calculators and/or computer algebra systems are used extensively. Applications are emphasized. Prereq: MATH 1110 and placement test. No joint credit with MATH 1130. **Semester Hours:** 3 to 3

MATH 1130 - Precalculus Mathematics

Condensed treatment of the topics in MATH 1110 and 1120. Prereq: satisfactory score on the placement exam. No co-credit with MATH 1070, 1110 or 1120. **Semester Hours:** 4 to 4

MATH 1401 - Calculus I

First course of a three-semester sequence (MATH 1401, 2411, 2421) in calculus. Topics covered include limits, derivatives, applications of derivatives, and the definite integral. Note: No co-credit with MATH 1080. Prereq: MATH 1120 or 1130 and satisfactory score on the placement exam. **Semester Hours:** 4 to 4

MATH 1840 - Independent Study.

Semester Hours: 1 to 3

MATH 2411 - Calculus II

The second of a three-semester sequence (MATH 1401, 2411, 2421) in calculus. Topics covered include exponential, logarithmic, and trigonometric functions, techniques of integration, indeterminate forms, improper integrals and infinite series. Prereq: MATH 1401. **Semester Hours:** 4 to 4

MATH 2421 - Calculus III

The third of a three-semester sequence in Calculus (MATH 1401, 2411 and 2421). Topics include vectors, vector-valued functions, partial differentiation, differentiation, multiple integration, and vector calculus. Prereq: MATH 2411. **Semester Hours:** 4 to 4

MATH 2511 - Discrete Structures

Covers the fundamentals of discrete mathematics, including: logic, sets, functions, growth of functions, algorithms, matrices, mathematical reasoning, proofs, induction, relations, graphs, trees and combinatorics. There is an emphasis on how discrete mathematics applies to computer science in general, and algorithm analysis in particular. Prereq: CSCI 2421. Cross-listed with CSCI 2511. **Semester Hours:** 3 to 3

MATH 2810 - Topics

Topics in mathematics with various subtitles reflecting course content. Prereq: permission of instructor. **Semester Hours:** 1 to 3

MATH 2830 - Introductory Statistics

Basic statistical concepts, summarizing data, probability concepts, distributions, confidence intervals, hypothesis testing. Prereq: intermediate algebra. **Semester Hours:** 3 to 3

MATH 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 1 to 3

MATH 3000 - Introduction to Abstract Mathematics

Students learn to prove and critique proofs of theorems by studying elementary topics in abstract mathematics, including logic, sets, functions, equivalence relations and elementary combinatorics. Prereq: MATH 2411. **Semester Hours:** 3 to 3

MATH 3040 - Mathematics for Elementary Teachers

Topics include intuitive and logical development of geometric ideas relevant to K-6 curriculum; measurement of length, area, volume, mass, angle, temperature, time and the metric system. Further study of the rational number system, probability and statistics, applications and problem solving. Note: Carries credit only for elementary education majors. Prereq: 3 years of high school mathematics. Cross-listed with ELED 5400. **Semester Hours:** 3 to 3

MATH 3191 - Applied Linear Algebra

Topics include systems of equations, Gaussian elimination with partial pivoting, LU--decomposition of matrices, matrix algebra, determinants, vector spaces, linear transformations, eigen values and applications. Note: No co-credit with MATH 3195. Prereq: MATH 2411. **Semester Hours:** 3 to 3

MATH 3195 - Linear Algebra and Differential Equations

Presents the essential ideas and methods of linear algebra and differential equations, emphasizing the connections between and the applications of both subjects. The course is designed for students in the sciences and engineering. Note: No co-credit with MATH 3200 and MATH 3191. Prereq: MATH 2411. **Semester Hours:** 4 to 4

MATH 3200 - Elementary Differential Equations

First and second order differential equations, Laplace transforms, systems of equations, with an emphasis on modeling and applications. Note: No co-credit with MATH 3195. Prereq: MATH 2411; coreq is MATH 3191. **Semester Hours:** 3 to 3

MATH 3210 - Higher Geometry I

Studies the foundations of modern geometry by examining axiomatic systems for various geometries, with an emphasis on non-Euclidean hyperbolic geometry. Prereq: MATH 3000. Cross-listed with MCKE 5210. **Semester Hours:** 3 to 3

MATH 3250 - Problem Solving Tools

Students learn and refine both problem solving techniques and computer programming skills. Examples, exercises, and projects are taken from a wide range of mathematical topics including

algebra, calculus, linear algebra and probability. Note: This course will not count toward a graduate degree in applied mathematics. Prereq: MATH 2411. Coreq: either MATH 3191 or MATH 3195. Cross-listed with MATH 5250. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

MATH 3301 - Introduction to Operations Research I - Deterministic Systems

A mathematical approach to decision making based on optimization. Topics include linear programming, network flows and production models. Prereq: MATH 3191 or 3195. **Semester Hours:** 3 to 3

MATH 3302 - Operations Research II

Elementary stochastic processes and standard nondeterministic operations research models: Markov chains, Poisson processes, renewal processes, queuing theory, inventory models, Markov decision processes, simulation. Prereq: MATH 3191 and 3800. **Semester Hours:** 3 to 3

MATH 3440 - Introduction to Symbolic Logic

Covers truth functional and quantificational logic through polyadic first order predicate calculus and theory of identity. Attention is given to such problems in metatheory as proofs of the completeness and consistency of systems of logic. Prereq: MATH 3000. Cross-listed with PHIL 3440. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

MATH 3511 - Mathematics of Chemistry

Multivariate functions, probability and statistics for chemistry, matrices and vectors, mathematics of reaction kinetics and symmetry point groups. Course covers mathematics needed for CHEM 4511 and 4521. Can also be an elective for the mathematics minor. Prereq: MATH 2411, CHEM 2031, CHEM 2061. **Semester Hours:** 4 to 4 **When Offered:** *FALL*

MATH 3800 - Probability and Statistics for Engineers

Basic probability theory, discrete and continuous random variables, point and interval estimation, test of hypotheses, one-way analysis of variance, and simple linear regression. Note: no co-credit with MATH 4810. Prereq: MATH 2411; coreq: MATH 2421. **Semester Hours:** 3 to 3

MATH 3939 - Internship

Designed experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

MATH 4010 - History of Mathematics

A history of the development of mathematical techniques and ideas from early civilization to the present, including the inter-relationships of mathematics and sciences. Prereq: MATH 1401. Cross-listed with MATH 5010. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

MATH 4012 - An Advanced Perspective on Number and Operation

Advanced study of number and operation, including why the various procedures from arithmetic work and connections to algebraic reasoning. Focuses on using rigorous mathematical reasoning and multiple representations to explain concepts. Note: For undergraduate majors, this course only counts toward the mathematics education option. Prereq: MATH 3000 or permission of instructor. Cross-listed with MATH 5012. **Semester Hours:** 2 to 2

MATH 4013 - An Inquiry-based Approach to Geometry

An inquiry-based approach to middle-level and Euclidean geometry. Topics include: polygons and the angle relationships, constructions, Pythagorean theorem and perimeter, area and volume, similarity and congruence, circles. Note: For undergraduate majors, this course only counts toward the mathematics education option. Prereq: MATH 3000 or permission of instructor. Cross-listed with MATH 5013. **Semester Hours:** 1 to 1

MATH 4014 - Statistical Knowledge for Teaching

A problem-based statistics seminar aimed at secondary teachers. Topics include: the central limit theorem, the law of large numbers, probability, measures of central tendency and variability, sampling distributions, regression, and hypothesis testing. Note: For undergraduate majors, this course only counts toward the mathematics education option. Prereq: MATH 3800 or permission of instructor. Cross-listed with MATH 5014. **Semester Hours:** 1 to 1

MATH 4015 - Capstone Course for Secondary Teachers

High school mathematics from an advanced perspective: analyses of alternative definitions, extensions and generalizations of familiar theorems; discussions of historical contexts in which concepts arose; applications of mathematics. Note: For undergraduate majors, this course only counts toward the mathematics education option. Prereq: MATH 3210, MATH 4310, MATH 3140 or permission of instructor. Cross-listed with MATH 5015. **Semester Hours:** 3 to 3

MATH 4027 - Topics in Mathematics

Special topics in mathematics will be covered; consult 'Schedule Planner' for current topics and prerequisites. **Semester Hours:** 3 to 3

MATH 4101 - Applied Statistics Using SAS and SPSS I

Teaches the practical statistical tools social scientists use to analyze real-world problems. Course split into four modules, each taught by a different instructor. The first module introduces SAS and SPSS; modules 2-4 are problem-based and cover topics such as ANOVA, multivariate regression, and cluster analysis. Prereq: any statistics course. **Semester Hours:** 3 to 3

MATH 4102 - Applied Statistics Using SAS and SPSS II

(Continuation of MATH 4101.) Students use the skills they learned in the previous semester to analyze a social issue of their choosing and present their findings. In addition to lectures, weekly one-on-one meetings between faculty and student are required. Prereq: MATH 4101. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

MATH 4110 - Theory of Numbers

Every other year. Topics include divisibility, prime numbers, congruencies, number theoretic functions, quadratic reciprocity, and special diophantine equations, with applications in engineering. Prereq: MATH 3000. Cross-listed with MATH 5110. **Semester Hours:** 3 to 3

MATH 4140 - Introduction to Modern Algebra

Studies the fundamental algebraic structures used in modern mathematics. Topics include groups, rings, fields and polynomials. Prereq: MATH 3000 and either MATH 3191 or MATH 3195. Cross-listed with MCKE 5140. **Semester Hours:** 3 to 3

MATH 4201 - Topology

Metric spaces and topological spaces, compactness, separation properties, and connectedness. Prereq: MATH 3000. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

MATH 4220 - Higher Geometry II

Studies affine and projective geometries. Coordinates are introduced in this framework. Planes and higher dimensional spaces are examined. Prereq: MATH 3191. **Semester Hours:** 3 to 3

MATH 4310 - Introduction to Real Analysis I

Calculus of one variable, the real number system, continuity, differentiation, integration theory, sequence and series. Prereq: MATH 2421 and 3000. Cross-listed with MCKE 5310. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

MATH 4320 - Introduction to Real Analysis II

Convergence, uniform convergence; Taylor's theorem; calculus of several variables including continuity, differentiation and integration; Picard's theorem in ordinary differential equations and Fourier series. Prereq: MATH 4310. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

MATH 4387 - Regression Analysis, Modeling and Time Series

Topics include linear and multiple regression, basic experimental designs, one-way analysis of variance. Emphasis is on practical aspects and applications of linear models to the analysis of data in business engineering, behavioral, biological and physical sciences. Prereq: MATH 3191 and 3800/4820. Cross-listed with MATH 5387. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

MATH 4390 - Game Theory

Begins with an introduction to the mathematical theory of games and the definition of a solution, including extensive and normal forms of representation. The fundamental minimax theorem is presented first as the foundation for two-person matrix games, then extended with fixed point theory to other games. Principles of dominance and solution methods are presented, plus applications to economics, political science, engineering, and other fields. An introduction to n-person game theory is included, with basic terms and concepts. Prereq: MATH 2421, 3191 and 3800/4810. Cross-listed with MATH 5390. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

MATH 4394 - Experimental Designs

Infrequent. Completely randomized block designs factorial and fractional factorial experiments, balanced incomplete block designs, responses surface methods. Prereq: MATH 4387. Cross-listed with MATH 5394. **Semester Hours:** 3 to 3

MATH 4408 - Applied Graph Theory

Introduces discrete structures and applications of graph theory to computer science, engineering, operations research, social science, and biology. Topics include connectivity, coloring, trees, Euler and Hamiltonian paths and circuits, matching and covering problems, shortest route and network flows. Prereq: CSCI/MATH 2511 or MATH 3000. Cross-listed with CSCI 4408 and MCKE 5408. **Semester Hours:** 3 to 3

MATH 4409 - Applied Combinatorics

Every other year. Major emphasis is on applied combinatorics and combinatorial algorithms, with applications in computer science and operations. Topics include general counting methods, generating functions, recurrence relations, inclusion-exclusion, and block designs. Prereq: MATH 3000. Cross-listed with MCKE 5409. **Semester Hours:** 3 to 3

MATH 4450 - Complex Variables

Infrequent. Topics include complex algebra, Cauchy-Riemann equations, Laurent expansions, theory of residues, complex integration, and introduction to conformal mapping. Prereq: MATH 2421 and MATH 3000. **Semester Hours:** 3 to 3

MATH 4576 - Mathematical Foundations of Artificial Intelligence I

Infrequent. Fundamentals course that complements other approaches, such as in engineering, psychology, and business administration. Here, the emphasis is on the mathematical foundations. Topics include logical inference, problem solving, heuristic search, neural search, neural nets, analogical reasoning and learning. Models and paradigms also consider different measures of uncertainty. Prereq: CSCI 2511, MATH 2511/3000 and 3191. Cross-listed with MATH 5576. **Semester Hours:** 3 to 3

MATH 4590 - Applied Math Senior Sem

Semester Hours: 1 to 1

MATH 4650 - Numerical Analysis I

Methods and analysis of techniques used to resolve continuous mathematical problems on the computer. Solution of linear and nonlinear equations, interpolation and integration. Prereq: MATH 2411, 3191 or 3195, and programming experience. Cross-listed with CSCI 4650, 5660, and MATH 5660. **Semester Hours:** 3 to 3

MATH 4660 - Numerical Analysis II

Numerical differentiation and integration, numerical solution of ordinary differential equations, and numerical solutions of partial differential equations as time allows. Prereq: MATH 3195 or both 3191 and 3200; MATH or CSCI 4650 or 5660; or programming experience. Cross-listed with MATH 5661, CSCI 4660 and 5661. **Semester Hours:** 3 to 3 **When Offered:** FALL SUM

MATH 4674 - Parallel Computing and Architectures

Infrequent. Examines a range of topics involved in using parallel operations to improve computational performance. Parallel architectures, parallel algorithms, parallel programming languages, interconnection networks, and their relation to specific computer architectures.

Prereq: MATH 4650. Cross-listed with MATH 5674. **Semester Hours:** 3 to 3

MATH 4733 - Partial Differential Equations

Infrequent. Initial/Boundary value problems for first-order, wave, heat and Laplace Equations; maximum principles; Fourier Series and applications. Prereq: MATH 2421 and 3200. Cross-listed with MATH 5733. **Semester Hours:** 3 to 3

MATH 4779 - Math Clinic

The clinic is intended to illustrate the applicability and utility of mathematical concepts. Research problems investigated originate from a variety of sources--industry, government agencies, educational institutions, or nonprofit organizations. Prereq: consult Schedule Planner or instructor. Cross-listed with MATH 5779. **Semester Hours:** 3 to 3

MATH 4788 - Bioinformatics

Provides a broad exposure to the basic concepts and methodologies of bioinformatics and their application to analyzing genomic and proteomic data. Topics may include dynamic programming algorithms, graph theoretic techniques, hidden Markov models, phylogenetic trees, RNA/protein structure prediction and microarray analysis. Prereq: CSCI 1410 and MATH 3191 or 3195. Cross-listed with CSCI 4788, PHYS 4788. **Semester Hours:** 3 to 3

MATH 4791 - Continuous Modeling

Every other year. Surveys mathematical problems that arise in natural sciences and engineering. Topics may include population models, epidemic models, mechanics, heat transfer and diffusion, tomography, pharmaco-kinetics, traffic flow, fractal models, wave phenomena, and natural resource management. Most models discussed are based on differential and integral equations. Emphasis is formulation and validation of models as well as methods of solution. Prereq: MATH 3191 and 3200. Cross-listed with MATH 5791. **Semester Hours:** 3 to 3

MATH 4792 - Probabilistic Modeling

Every other year. Markov chains; Poisson processes, continuous time Markov chains, elementary topics in queuing theory, and some mathematical aspects of Monte Carlo simulation, including random variate generation, variance reduction, and output analysis. Prereq: MATH 4810, 5310 and some programming experience. Cross-listed with MATH 5792. **Semester Hours:** 3 to 3

MATH 4793 - Discrete Math Modeling

Every other year. Focuses on the use of graph theory and combinatorics to solve problems in a wide variety of disciplines. Applications are selected from computer science, communication networks, economics, operations research, and the social, biological and environmental sciences. Prereq: MATH 3191 and 4408. Cross-listed with MATH 5793. **Semester Hours:** 3 to 3

MATH 4794 - Optimization Modeling

Every other year. Principles of model formulation and analysis are developed by presenting a wide variety of applications, both for natural phenomena and social systems. Examples of optimization models to represent natural phenomena include principles of least time and energy. Examples in social systems include resource allocation, environmental control and land management. Specific applications vary, but are chosen to cover a wide scope that considers dichotomies, such as discrete vs. continuous, static vs. dynamic, and deterministic vs. stochastic. Some computer modeling language (like GAMS) is taught. Prereq: MATH 2421 and 3191. Cross-listed with MATH 5794. **Semester Hours:** 3 to 3

MATH 4810 - Probability

Examines elementary theory of probability, including independence, conditional probability, and Bayes' theorem; random variables, expectations and probability distributions; joint and conditional distributions; functions of random variables; limit theorems, including the central limit theorem. Note: No co-credit with MATH 3800. Prereq: MATH 3191; Coreq: MATH 2421. Cross-listed with MATH 5310. **Semester Hours:** 3 to 3

MATH 4820 - Statistics

Point and confidence interval estimation, principles of maximum likelihood, sufficiency and completeness, tests of simple and composite hypothesis, linear models and multiple regression, analysis of variance. Prereq: MATH 3800 or MATH 4810 (preferred). Cross-listed with MATH 5320. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

MATH 4830 - Applied Statistics

Review of estimation, confidence intervals and hypothesis testing; Anova; categorical data analysis; non-parametric tests; linear and logistic regression. Prereq: an introductory course in statistics such as MATH 2830 or permission of instructor. Cross-listed with MATH 5830. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

MATH 4840 - Independent Study

Variable credit depending on the student's needs. Offered for the advanced student who desires to pursue a specific topic in considerable depth. Note: Supervision by a full-time faculty member is necessary, and the dean's office must concur. Students may register for this course more than once with departmental approval. **Semester Hours:** 1 to 3

MATH 5010 - History of Mathematics

A history of the development of mathematical techniques and ideas from early civilization to the present, including the inter-relationships of mathematics and sciences. Prereq: MATH 1401. Not open to students who have had MATH 4010. No credit for applied math graduate students. Cross-listed with MATH 4010. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

MATH 5012 - An Advanced Perspective on Number and Operation

Advanced study of number and operation, including why the various procedures from arithmetic work and connections to algebraic reasoning. Focuses on using rigorous mathematical reasoning and multiple representations to explain concepts. Note: Does not count

toward graduate degrees in applied mathematics. Prereq: MATH 3000 or permission of instructor. Cross-listed with MATH 4012. **Semester Hours:** 2 to 2

MATH 5013 - An Inquiry-based Approach to Geometry

An inquiry-based approach to middle-level and Euclidean geometry. Topics include: polygons and the angle relationships, constructions, Pythagorean theorem and perimeter, area and volume, similarity and congruence, circles. Note: Does not count toward a graduate degree in applied mathematics. Prereq: MATH 3000 or permission of instructor. Cross-listed with MATH 4013. **Semester Hours:** 1 to 1

MATH 5014 - Statistical Knowledge for Teaching

A problem-based statistics seminar aimed at secondary teachers. Topics include: the central limit theorem, the law of large numbers, probability, measures of central tendency and variability, sampling distributions, regression, and hypothesis testing. Note: Does not count toward a graduate degree in applied mathematics. Prereq: MATH 3800 or permission of instructor. Cross-listed with MATH 4014. **Semester Hours:** 1 to 1

MATH 5015 - Capstone Course for Secondary Teachers

High school mathematics from an advanced perspective: analyses of alternative definitions, extensions and generalizations of familiar theorems; discussions of historical contexts in which concepts arose; applications of mathematics. Note: Does not count toward a graduate degree in applied mathematics. Prereq: MATH 3210, MATH 4310, MATH 3140 or permission of instructor. Cross-listed with MATH 4015. **Semester Hours:** 3 to 3

MATH 5016 - RM-MSMSP Research Experience for Teachers - Math Cohort

The Research Experience for Teachers (RET) program is a five-week research exploration in which twelve RM-MSMSP teachers will raise their level of relevant mathematics understanding by engaging in a "hands on" workshop, transforming what they have learned **Semester Hours:** 1 to 6

MATH 5017 - Topics in Mathematics for Teachers

Topics vary from semester to semester. Designed for professional mathematics teachers. Note: This course will not count toward a degree in applied mathematics. Prereq: permission of instructor. **Semester Hours:** 0.3 to 50

MATH 5027 - Topics in Applied Mathematics

Selected topics in mathematical problems arising from various applied fields such as mechanics, electromagnetic theory, economics and biological sciences. Prereq: permission of instructor. **Semester Hours:** 3 to 3

MATH 5070 - Applied Analysis

Metric spaces, uniform convergence, elements of Banach spaces, elements of functions of complex variable. Problem solving and independent proof writing. Review of selected advanced topics in analysis for the PhD preliminary examination. Prereq: MATH 4320. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

MATH 5110 - Theory of Numbers

Every other year. Topics include divisibility, prime numbers, congruences, number theoretic functions, quadratic reciprocity, and special diophantine equations, with applications in engineering. Prereq: MATH 3000. Cross-listed with MATH 4110. **Semester Hours:** 3 to 3

MATH 5135 - Functions of a Complex Variable

Infrequent. The complex plane, infinite series and products, elementary special functions, Cauchy-Riemann equations, conformal mapping, complex integration, Cauchy integral theory, and residue theory. Prereq: MATH 4320; MATH 5070 recommended. **Semester Hours:** 3 to 3

MATH 5198 - Mathematics for Bioscientists

Infrequent. Develops mathematical reasoning: introduces linear algebra, discrete structures, graph theory, probability, and differential equations, using applications to molecular biology. Note: No credit for mathematics or engineering students. Prereq: MATH 2411. **Semester Hours:** 3 to 3

MATH 5250 - Problem Solving Tools

Students learn and refine both problem solving techniques and computer programming skills. Examples, exercises, and projects are taken from a wide range of mathematical topics including algebra, calculus, linear algebra and probability. Note: This course will not count toward a graduate degree in applied mathematics. Coreq: MATH 2421. Cross-listed with MATH 3250. **Semester Hours:** 3 to 3 **When Offered:** FALL

MATH 5310 - Probability

Examines elementary theory of probability, including independence, conditional probability, and Bayes' theorem; random variables, expectations and probability distributions; joint and conditional distributions; functions of random variables; limit theorems, including the central limit theorem. Prereq: MATH 2421 and 3191. Cross-listed with MATH 4810. **Semester Hours:** 3 to 3

MATH 5320 - Statistics

Point and confidence interval estimation, principles of maximum likelihood, sufficiency and completeness, tests of simple and composite hypothesis, linear models and multiple regression, analysis of variance. Prereq: MATH 3800. MATH 4810 highly recommended, but not required. Cross-listed with MATH 4820. **Semester Hours:** 3 to 3 **When Offered:** SPRING

MATH 5350 - Mathematical Theory of Interest

Rates of interest, term structure of interest rates, force of interest, yield rate, principal, equation of value, annuity, perpetuity, stocks, bonds, other financial instruments. Prereq: MATH 4810/5310. **Semester Hours:** 3 to 3

MATH 5351 - Actuarial Models

Severity models, frequency models, aggregate models, risk measures, ruin theory, construction and selection of empirical models, credibility, simulation. Prereq: Probability (MATH 4810/5310), Statistics (MATH 4820/5320). **Semester Hours:** 3 to 3

MATH 5387 - Regression Analysis, Modeling and Time Series

Topics include linear and multiple regression, basic experimental designs, one-way analysis of variance. Emphasis is on practical aspects and applications of linear models to the analysis of data in business engineering and behavioral, biological and physical sciences. Prereq: MATH 3191 and 3800/4820. Cross-listed with MATH 4387. **Semester Hours:** 3 to 3 **When Offered:** FALL

MATH 5390 - Game Theory

Infrequent. Begins with an introduction to the mathematical theory of games and the definition of a solution, including extensive and normal forms of representation. The fundamental minimax theorem is presented first, as the foundation for two-person matrix games, then extended with fixed point theory to other games. Principles of dominance and solution methods are presented, plus applications to economics, political science, engineering, and other fields. An introduction to n-person game theory is included, with basic terms and concepts. Prereq: MATH 2421, 3191 and 3800/4810. Cross-listed with MATH 4390. **Semester Hours:** 3 to 3

MATH 5394 - Experimental Designs

Infrequent. Completely randomized block designs, factorial and fractional factorial experiments, balanced incomplete block designs, response surface methods. Prereq: MATH 4387 and 5387. Cross-listed with MATH 4394. **Semester Hours:** 3 to 3

MATH 5410 - Modern Cryptology

Every other year. Deals with the mathematics that underlies modern cryptology. Topics include: classical cryptology, public and private key cryptosystems, secret sharing schemes, authentication schemes, linear feedback shift registers, discrete logarithm and elliptic curve-based schemes. Prereq: MATH 3191. **Semester Hours:** 3 to 3

MATH 5432 - Computational Graph Theory

Infrequent. Algorithmic techniques in graph theory and other discrete mathematics areas. Typical topics include: branch-bound algorithms, matching, colorings, domination, min-plus algebra, simulated annealing and related heuristics, NP-completeness theory. Prereq: a course in graph theory and some programming experience. **Semester Hours:** 3 to 3

MATH 5446 - Theory of Automata

Infrequent. Studies the relationships between classes of formal languages (regular, context-free, context-sensitive, phrase-structure) and classes of automata (finite-state, pushdown, Turing machines). Additional topics include decidability and computability issues. Prereq: MATH 3000 and 3140. Cross-listed with CSCI 5446. **Semester Hours:** 3 to 3

MATH 5490 - Network Flows

Every other year. Begins with the classical min-cost flow problem, defined on an ordinary network. Other problems, such as shortest path, are also shown in this class. Both theory and algorithms are presented. Extensions include generalized networks, nonlinear costs, fixed charges, multi-commodity flows and additional applications, such as in communications networks. Prereq: Graduate standing in math or computer science. **Semester Hours:** 3 to 3

MATH 5576 - Mathematical Foundations of Artificial Intelligence I

Infrequent. A fundamentals course that complements other approaches, such as in engineering, psychology, and business administration. Here the emphasis is on the mathematical foundations. Topics include logical inference, problem solving, heuristic search, neural nets, analogical reasoning and learning. Models and paradigms also consider different measures of uncertainty. Prereq: CSCI 2511, MATH 2511/3000 and 3191. Cross-listed with MATH 4576.

Semester Hours: 3 to 3

MATH 5593 - Linear Programming

A linear program is an optimization problem that seeks to minimize or maximize a linear function subject to a system of linear inequalities and equations. This course begins with examples of linear programs and variations in their representations. Basic theoretical foundations covered include polyhedra, convexity, linear inequalities and duality. Two classes of solution algorithms are given: simplex methods and interior point methods. The primary emphasis of this course is on mathematical foundations, and applications are used to illustrate the main results. Prereq: MATH 3191. **Semester Hours:** 3 to 3 **When Offered:** FALL

MATH 5610 - Computational Biology

Every other year. Basic introduction and mathematical foundations. Topics include comparative genomics; proteomics; phylogeny; dynamic programming and sequence alignment; gene expression arrays and clustering; Bayesian networks; structure prediction and hidden Markov models. Prereq: CSCI 1410 or equivalent programming experience, and MATH 3191 or 3195.

Semester Hours: 3 to 3

MATH 5660 - Numerical Analysis I

Methods and analysis of techniques used to resolve continuous mathematical problems on the computer. Solution of linear and nonlinear equations, interpolation and integration. Prereq: MATH 2411, 3191 or 3195, and programming experience. Cross-listed with CSCI 4650, 5660, and MATH 4650. **Semester Hours:** 3 to 3

MATH 5661 - Numerical Analysis II

Numerical differentiation and integration, numerical solution of ordinary differential equations, and numerical solutions of partial differential equations as time allows. Prereq: MATH 3195 or both 3191 and 3200; MATH or CSCI 4650 or 5660; or programming experience. Cross-listed with MATH 4660, CSCI 4660 and 5661. **Semester Hours:** 3 to 3 **When Offered:** SPRING

MATH 5674 - Parallel Computing and Architectures

Infrequent. Examines a range of topics involved in using parallel operations to improve computational performance. Parallel architectures, parallel algorithms, parallel programming languages, interconnection networks, and their relation to specific computer architectures.

Prereq: MATH 4650. Cross-listed with MATH 4674. **Semester Hours:** 3 to 3

MATH 5718 - Applied Linear Algebra

Topics include: Vector spaces, practical solution of systems of equations, projections, eigenvalues and eigenvectors, unitary transformations, Schur QR, singular value

decompositions, similarity transformations, Jordan forms, and positive definite matrices.

Prereq: MATH 3191. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

MATH 5733 - Partial Differential Equations

Infrequent. Initial/Boundary value problems for first-order, wave, heat and Laplace Equations; maximum principles; Fourier Series and applications. Prereq: MATH 2421 and 3200; graduate standing. Cross-listed with MATH 4733. **Semester Hours:** 3 to 3

MATH 5779 - Math Clinic

The clinic is intended to illustrate the applicability and utility of mathematical concepts. Research problems investigated originate from a variety of sources--industry, government agencies, educational institutions, or nonprofit organizations. Prereq: consult Schedule Planner or instructor. Cross-listed with MATH 4779. **Semester Hours:** 3 to 3

MATH 5791 - Continuous Modeling

Every other year. Surveys mathematical problems that arise in natural sciences and engineering. Topics may include population models, epidemic models, mechanics, heat transfer and diffusion, tomography, pharmaco-kinetics, traffic flow, fractal models, wave phenomena, and natural resource management. Most models discussed are based on differential and integral equations. Emphasis is formulation and validation of models as well as methods of solution. Prereq: MATH 3191 and 3200. Cross-listed with MATH 4791. **Semester Hours:** 3 to 3

MATH 5792 - Probabilistic Modeling

Every other year. Markov chains; Poisson processes, continuous time Markov chains, elementary topics in queuing theory, and some mathematical aspects of Monte Carlo simulation, including random variate generation, variance reduction, and output analysis. Prereq: MATH 4810 or 5310 and some programming experience. Cross-listed with MATH 4792. **Semester Hours:** 3 to 3

MATH 5793 - Discrete Math Modeling

Every other year. Focuses on the use of graph theory and combinatorics to solve problems in a wide variety of disciplines. Applications are selected from computer science, communication networks, economics, operations research, and the social, biological and environmental sciences. Prereq: MATH 3191 and 4408. Cross-listed with MATH 4793. **Semester Hours:** 3 to 3

MATH 5794 - Optimization Modeling

Every other year. Principles of model formulation and analysis are developed by presenting a wide variety of applications, both for natural phenomena and social systems. Examples of optimization models to represent natural phenomena include principles of least time and energy. Examples in social systems include resource allocation, environmental control and land management. Specific applications vary, but are chosen to cover a wide scope that considers dichotomies, such as discrete vs. continuous, static vs. dynamic, and deterministic vs. stochastic. Some computer modeling language (like GAMS) is taught. Prereq: MATH 2421 and 3191. Cross-listed with MATH 4794. **Semester Hours:** 3 to 3

MATH 5830 - Applied Statistics

Review of estimation, confidence intervals and hypothesis testing; ANOVA; categorical data analysis; non-parametric tests; linear and logistic regression. Prereq: an introductory course in statistics such as MATH 2830 or permission of instructor. Cross-listed with MATH 4830.

Semester Hours: 3 to 3 **When Offered:** *SPRING*

MATH 5840 - Independent Study

Available only with approval of graduate advisor. Subjects arranged. **Semester Hours:** 1 to 3

MATH 5939 - Internship

Semester Hours: 1 to 6

MATH 5950 - Master's Thesis

Semester Hours: 1 to 8

MATH 5960 - Master's Project

Note: Credit hours for this course will not count toward a graduate degree in Applied Mathematics. **Semester Hours:** 1 to 8

MATH 6023 - Topics in Discrete Math

Topics may include graph theory, combinatorics, matroid theory, combinatorial matrix theory, finite geometry, design theory, and discrete algorithms. Note: Since topic varies by semester, students may register for this course more than once. Prereq: permission of the instructor.

Semester Hours: 3 to 3

MATH 6131 - Real Analysis

Every other year. Lebesgue measure and integration, general measure and integration theory, Radon-Nikodym Theorem, Fubini Theorem. Prereq: MATH 4320 or 5070. **Semester Hours:** 3 to 3

MATH 6330 - Workshop in Statistical Consulting

Students participate as consultants in a drop-in consulting service operated by the department. Seminars provide students with supervised experience in short term statistical consulting. Note: Since problems vary each semester, students may register for this course more than once.

Prereq: MATH 5387. **Semester Hours:** 3 to 3

MATH 6360 - Exploratory Data Analysis

Every other year. Philosophy and techniques associated with exploratory (vs. confirmatory) data analysis, both as originally presented (John Tukey) and current computer-based implementations. Graphical displays, robust-resistant methods (lines, two-way fits), diagnostic plots, standardization. Prereq: Previous statistics course or permission of instructor. **Semester Hours:** 3 to 3

MATH 6376 - Statistical Computing

Computationally-intensive methods in statistics, including random number generation and Monte Carlo methods, data partitioning and re-sampling, numerical and graphical methods, nonparametric function estimation, statistical models and data mining methodology, analysis of large data sets. Prereq: MATH 4820/4830 and 4387. Cross-listed with MATH 7376. **Semester Hours:** 3 to 3

MATH 6380 - Stochastic Processes

Every other year. Markov processes in discrete and continuous time, renewal theory, martingales, Brownian motion, branching processes, and stationary processes. Applications include queuing theory, performance evaluation of computer and communication systems and finance. Prereq: MATH 3191, MATH 3200, and MATH 4810/5310. **Semester Hours:** 3 to 3

MATH 6384 - Analysis of Dependent Data

Infrequent. Statistical methods for the analysis of data with temporal and/or spatial dependence. Longitudinal data, stationary and non-stationary time series models, geostatistical and lattice spatial models, point processes, hierarchical models. Prereq: MATH 4820 or 4830 and MATH 4387. **Semester Hours:** 3 to 3

MATH 6388 - Advanced Statistical Methods for Research

Infrequent. The second in a two-semester course in applied statistics. Topics include multifactor analysis of variance and covariance, categorical data, general linear models, bootstrapping, and other computationally intensive statistical methods. Prereq: MATH 5387. **Semester Hours:** 3 to 3

MATH 6393 - Introduction to Bayesian Statistics

Prior and posterior distributions, conjugate models, single and multiparameter models, hierarchical models, mixture models, numerical methods for evaluating posteriors, Monte Carlo methods, and Markov chain Monte Carlo. Prereq: MATH 3800 or both MATH 4810 and MATH 4820 (or equivalent). Some computer programming experience. **Semester Hours:** 3 to 3

MATH 6395 - Multivariate Methods

Every other year. Multivariate distributions, hypothesis testing and estimation. Multivariate analysis of variance, discriminant analysis, multidimensional scaling, factor analysis, principal components. Prereq: MATH 5387. **Semester Hours:** 3 to 3

MATH 6398 - Calculus of Variations and Optimal Control

Infrequent. Standard variational problems (geodesic, time-of-transit, isoperimetric, surface, area), Euler-Lagrange equations, variational principles in mechanics, optimal control problems, necessary conditions for optimality, Pontryagin principle. Prereq: MATH4320. **Semester Hours:** 3 to 3

MATH 6404 - Applied Graph Theory

Every other year. Emphasis on graph theory. Topics will include trees, digraphs and networks, intersection graphs, coloring, clique coverings, distance, paths and cycles. Topics are motivated by applications. Prereq: Graduate standing. **Semester Hours:** 3 to 3

MATH 6595 - Computational Methods in Nonlinear Programming

Every other year. Introduces fundamental algorithms and theory for nonlinear optimization problems. Topics include Newton, quasi-Newton and conjugate direction methods; line search and trust-region methods; active set, penalty and barrier methods for constrained optimization; convergence analysis and duality theory. Prereq: MATH 4320 and MATH 5718. **Semester Hours:** 3 to 3

MATH 6653 - Introduction to Finite Element Methods

Every other year. The Finite Element Method (FEM) is introduced as a generic tool for the approximation of partial differential equations that model engineering and physics problems of interest. Elliptic, hyperbolic, and parabolic equations are solved with FEM. Prereq: MATH 5660. **Semester Hours:** 3 to 3

MATH 6735 - Continuum Mechanics

Every other year. Indicial notation. Eulerian and Lagrangian coordinates. Deformation, strain, strain rate, stress. Conservation of mass, momentum, and energy. Exploitation of entropy production inequality to obtain constitutive equations for elastic, viscous, visco elastic, plastic, or porous materials. Prereq: MATH 3191 and 3200 or graduate standing. **Semester Hours:** 3 to 3

MATH 6840 - Independent Study

Semester Hours: 1 to 3

MATH 7101 - Topology

Every other year. Topological spaces, compactness, separation properties and connectedness. Prereq: MATH 4320. **Semester Hours:** 3 to 3

MATH 7132 - Functional Analysis

Every other year. Linear metric and topological spaces, duality, weak topology, spaces of functions, linear operators, compact operators, elements of spectral theory, and operator calculus. Prereq: MATH 6131. **Semester Hours:** 3 to 3

MATH 7376 - Statistical Computing

Computationally-intensive methods in statistics, including random number generation and Monte Carlo methods, data partitioning and re-sampling, numerical and graphical methods, nonparametric function estimation, statistical models and data mining methodology, analysis of large data sets. Prereq: MATH 4820/4830 and 4387. Cross-listed with MATH 6376. **Semester Hours:** 3 to 3

MATH 7381 - Mathematical Statistics I

Every other year. Mathematical theory of statistics. Parametric inference: discrete and continuous distributions, methods of parameter estimation, confidence intervals. Prereq: MATH 3191 and 4820/5320. **Semester Hours:** 3 to 3

MATH 7382 - Mathematical Statistics II

Every other year. (Continuation of MATH 7381.) Hypothesis testing, robust estimation, tolerance intervals, nonparametric inference, sequential methods. Prereq: MATH 7381. **Semester Hours:** 3 to 3

MATH 7384 - Mathematical Probability

Every other year. Measurable spaces, probability measures, random variables, conditional expectations and martingales. Convergence in probability, almost sure convergence, convergence in distribution, limit theorems (law of large numbers, central limit theorem, laws of iterated logarithm). Prereq: MATH 4810/5310 and MATH 5070 or MATH 6131. **Semester Hours:** 3 to 3

MATH 7385 - Stochastic Differential Equations

Brownian motion, Ito integral, Ito formula, Dynkin's formula, stochastic optimal control, boundary value problems, Girsanov theorem, mathematical finance, optimal stopping. Prereq: MATH 7384. **Semester Hours:** 3 to 3

MATH 7397 - Nonparametric Statistics

Every three years. Statistical inference without strong model assumptions. Hypothesis testing and estimation using permutations and ranks, analysis of variance, and nonparametric model fitting. Prereq: applied mathematics - statistics (PhD.) **Semester Hours:** 3 to 3

MATH 7405 - Advanced Graph Theory

Continuation of MATH 6404. Topics to be covered include: trees and optimization, encoding and embedding of graphs, generalized colorings and applications, perfect graphs, extremal problems, substructures, connectedness' and cycles. Prereq: MATH 6404 or permission of instructor. **Semester Hours:** 3 to 3

MATH 7409 - Applied Combinatorics

Every other year. Emphasis is on enumerative combinatorics. Topics include multinomial coefficients, generating functions, SDRs, Polya's enumeration theory, pigeon-hole principle, inclusion/exclusion and Moebius inversion of finite posets. Topics may also include introduction to designs and finite geometry. **Semester Hours:** 3 to 3

MATH 7410 - Combinatorial Structures

Every other year. Finite combinatorial structures; existence, construction and applications. Topics include Latin squares, Hadamard matrices, block designs, finite geometries and extremal and non-constructive combinatorics. Prereq: MATH 5718 and MATH 7409 or permission of instructor. **Semester Hours:** 3 to 3

MATH 7413 - Modern Algebra I

Every other year. Groups, rings and ideals, integral domains. Prereq: MATH 3140. Coreq: MATH 5718. **Semester Hours:** 3 to 3

MATH 7414 - Modern Algebra II

Every other year. Field theory, Galois theory, Modules over rings, especially over integral domains. Prereq: MATH 5718 and MATH 7413. **Semester Hours:** 3 to 3

MATH 7419 - Mathematical Coding Theory

Error correcting codes are used to recapture information that has been distorted in some transmission process. Various coding schemes use block codes obtained from algebraic, geometric and combinatorial structures. Topics include: fundamentals, linear, Reed-Muller, Golay, cyclic and BCH codes. Prereq: MATH 5718. **Semester Hours:** 3 to 3

MATH 7421 - Projective Geometry

Every other year. Synthetic and algebraic development of projective spaces. Collineation groups, representation theorems, quadratic sets and applications. Emphasis is on finite projective spaces. Prereq: MATH 5718 and MATH 7409. **Semester Hours:** 3 to 3

MATH 7593 - Advanced Linear Programming

Every three years. A Ph.D. level course that goes deeper into linear programming, starting from where a graduate-level course (5593) ends. Topics include advanced sensitivity analysis, sparse matrix techniques, and special structures. Additional topics, which vary, include deeper analysis of algorithms, principles of model formulation and solution analysis. Prereq: MATH 5593. **Semester Hours:** 3 to 3

MATH 7594 - Integer Programming

Every three years. A Ph.D. level course that uses linear programming (5593), especially polyhedral theory, to introduce concepts of valid inequalities and superadditivity. Early group-theoretic methods by Gomory and Chvatal's rounding function are put into modern context, including their role in algorithm design and analysis. Duality theory and relaxation methods are presented for general foundation and analyzed for particular problem classes. Among the special problems considered are knapsack, covering, partitioning, packing, fix-charge, traveling salesman, generalized assignment matchings. Matroids are introduced and some greedy algorithms are analyzed. Additional topics, which vary, include representability theory, heuristic search and complexity analysis. Prereq: MATH 5593. **Semester Hours:** 3 to 3

MATH 7595 - Advanced Nonlinear Programming

Every three years. Focuses primarily on the fundamental theory of nonlinear programming. Topics include convex analysis, optimality criteria, Lagrangian and conjugate duality, stability and sensitivity analysis. Other topics vary depending on the research interests of the instructor. Prereq: MATH 6595. **Semester Hours:** 3 to 3

MATH 7663 - Finite Difference Methods for Partial Differential Equations

Every other year. Consistency, stability, and convergence for difference schemes. Derivations based on Taylor series and finite series. Methods for parabolic and hyperbolic initial value problems and initial-boundary-value problems, elliptic boundary-value problems, some nonlinear problems. Prereq: MATH 5070 and MATH 5733. **Semester Hours:** 3 to 3

MATH 7665 - Numerical Linear Algebra

Every other year. Solution of linear equations, eigenvector and eigenvalue calculation, matrix error analysis, orthogonal transformation, iterative methods. Prereq: MATH 5660 and MATH 5718. **Semester Hours:** 3 to 3

MATH 7667 - Introduction to Approximation Theory

Every other year. Linear normed and Banach spaces, convexity, existence and uniqueness of best approximations, least square approximation and orthogonal polynomials, Chebyshev approximation by polynomials and other related families, splines. Prereq: MATH 5070 and MATH 5718. **Semester Hours:** 3 to 3

MATH 7821 - Topics in Projective Geometry

Infrequent. Advanced topics in projective geometry. Topics may include finite projective planes, free projective planes, derivation, collineation groups, higher dimensional projective spaces, ovals and ovoids. Prereq: MATH 7421. **Semester Hours:** 3 to 3

MATH 7822 - Topics in Linear Algebra

Infrequent. Topics may include canonical forms, bilinear and quadratic forms, and combinatorial matrix theory. Prereq: MATH 5718. **Semester Hours:** 3 to 3

MATH 7823 - Topics in Discrete Math

Infrequent. Advanced topics in discrete mathematics; will change from semester to semester. Prereq: MATH 7413, 6404 and 7409 or permission of instructor. **Semester Hours:** 3 to 3

MATH 7824 - Topics in Computational Mathematics

Infrequent. Topics include methods for differential equations, numerical optimization, approximation theory, inverse problems, and Fourier analysis. Prereq: Permission of instructor. **Semester Hours:** 3 to 3

MATH 7825 - Topics in Optimization

Infrequent. Some topics are extensions of those introduced in MATH 6595, while other topics are new. Examples of topics are: duality, stability, sensitivity, consistency, redundancy, principles of optimality, control theory, calculus of various global (no **Semester Hours:** 3 to 3

MATH 7826 - Topics in Probability and Statistics

Infrequent. Topics may include generalized linear models, information theory, robust methods, spatial statistics, sequential analysis, Monte Carlo methods, queuing theory. Note: Since topics vary each semester, students may register for this course more t **Semester Hours:** 3 to 3

MATH 7827 - Topics in Applied Mathematics

Infrequent. Topics include problems in differential equations, optimization, mathematical modeling, Fourier analysis and approximation theory. Note: Since topics vary each semester, students may register for this course more than once. **Semester Hours:** 3 to 3

MATH 7840 - Independent Study

Available only to Ph.D. students. **Semester Hours:** 1 to 3

MATH 7921 - Readings in Mathematics

Annual. Seven readings courses are offered regularly primarily for Ph.D. students at the research level in the designated fields. The seminar format requires significant student participation.

Prereq: permission of instructor. **Semester Hours:** 1 to 1

MATH 7922 - Rdgs:Math Fndts-Cmptr Sc

Semester Hours: 1 to 1

MATH 7923 - Readings: Discrete Mathematics

Semester Hours: 1 to 1

MATH 7924 - Rdgs:Comp Mathematics

Semester Hours: 1 to 1

MATH 7925 - Readings: Optimization

Semester Hours: 1 to 1

MATH 7926 - Rdgs:Applied Prob/Stats

Semester Hours: 1 to 1

MATH 7927 - Rdgs:Comp/Math Biology

Semester Hours: 1 to 1

MATH 8660 - Mathematical Foundations of Finite Element Methods

Every other year. Theoretical foundations of finite element methods for elliptic boundary value problems, Sobolev spaces, interpolations of Sobolev spaces, variational formulation of elliptic boundary-value problems, basic error, estimates, applications to elasticity, practical aspects of finite element methods. Prereq: MATH 6653 (or equivalent programming experience), and MATH 6131/7132. **Semester Hours:** 3 to 3

MATH 8664 - Iterative Methods in Numerical Linear Algebra

Every other year. Preconditioned iterative methods for linear systems and eigen problems, conjugate gradients, multigrid and domain decomposition. Prereq: MATH 5660 and MATH 7665. **Semester Hours:** 3 to 3

MATH 8990 - Doctoral Dissertation

Only for students working on their Ph.D. research. **Semester Hours:** 1 to 10

Math Content Knowledge for Education Courses (MCKE)

MCKE 3041 - Number and Operation

First of three courses designed for prospective elementary teachers. Emphasis placed on the real number system and arithmetic operations. Explorations focus on place value, additive and multiplicative reasoning, the division algorithm and rational numbers. Content presented using problem solving and exploration. **Semester Hours:** 3 to 3

MCKE 3042 - Algebra, Probability and Data Analysis

Second of three courses designed for prospective elementary teachers. Emphasis placed on algebra, probability, and data analysis. Explorations focus on representing, analyzing, generalizing, formalizing, and communicating patterns and probabilities. Content presented using problem solving and exploration. Prereq: MCKE 3041 with 'C' or better. **Semester Hours:** 3 to 3

MCKE 3043 - Geometry and Measurement

Third of three courses designed for prospective elementary teachers. Emphasis placed on developing spatial reasoning skills in geometry and measurement. Explorations focus on two- and three-dimensional shapes, their properties, measurements, constructions, and transformations. Prereq: MCKE 3042 with 'C' or better. **Semester Hours:** 3 to 3

MCKE 5000 - Algebraic Patterns and Functions I

Systematic study of the core elements of algebra: linear, quadratic, exponential, logarithmic functions and their graphs. Includes modeling using graphing calculators and real world applications. Concepts are linked to other scientific, mathematical, and pedagogical domains. This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: permission of project director. **Semester Hours:** 4 to 4

MCKE 5002 - Algebraic Patterns and Functions II

This course is a continuation of the material covered in MATH 5000. Topics that will be covered include logarithmic, exponential and trigonometric functions and applications, parametric equations, systems of equations and inequalities, matrices and linear programming. This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: MATH 5000 or permission of instructor. **Semester Hours:** 4 to 4

MCKE 5004 - Statistics and Probability

Studies the collection, presentation, and analysis of data; and elements and applications of counting discrete probability. Includes real world applications and technology. Concepts are linked to other scientific, mathematical, and pedagogical domains. This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: permission of project director. **Semester Hours:** 4 to 4

MCKE 5005 - Geometry

Systematic study of advanced geometric concepts: history of geometry and measurement, patterns among shapes, 2- and 3-dimensional shapes, constructions, symmetry or

transformational geometry. Includes applications and activity-oriented instruction. Concepts are linked to other scientific, mathematical, and pedagogical domains. This course is not applicable toward any degree in the College of Liberal and Sciences. Prereq: permission of project director. **Semester Hours:** 4 to 4

MCKE 5006 - Mathematics of Change

Systematic study of the application of calculus to the analysis of changing systems in real world applications. Emphasizes the connections that exist between calculus and aspects of middle school curricula. Concepts are linked to other scientific, mathematical, and pedagogical domains. This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: MATH 5000 (or equivalent) or permission of project director. **Semester Hours:** 4 to 4

MCKE 5007 - Discrete Math--Counting the Possibilities

Systematic study of basic techniques in discrete mathematics and their various applications: permutations and combinations, inclusion or exclusion, pigeonhole principle, graph theory, and recursive pattern solving. Applications to topics such as network analysis and voting theory are stressed. Concepts are linked to other scientific, mathematical, pedagogical domains. This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: MATH 5000 (or equivalent) or permission of project director. **Semester Hours:** 4 to 4

MCKE 5008 - Discovery and Use of the History of Math

Systematic study of the people, events, ideas and issues from the history of mathematics, focusing on historical topics that are central to the discipline and teaching of mathematics and emphasizing web research of historical topics of interest. Concepts are linked to other scientific, mathematical, and pedagogical domains. Note: This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: permission of the project director.

Semester Hours: 4 to 4

MCKE 5009 - Math Modeling--Using and Applying Math

Systematic study of math modeling using algebra, geometry, discrete mathematics, rates of change, and statistics to solve real-world problems in areas such as finance, biology, economics, and physics. Concepts are linked to other scientific, mathematical, societal, and pedagogical domains. This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: MATH 5006 (or equivalent) or permission of instructor. **Semester Hours:** 4 to 4

MCKE 5011 - Mathematics and Science of Musical Instruments

A mathematical modeling course which investigates the mathematics and physics behind musical instruments while providing a deeper understanding of trigonometry and elementary calculus concepts. Note: This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: MATH 5000, 5002. **Semester Hours:** 4 to 4

MCKE 5018 - Topics in Mathematics Education for Teachers

Topics vary from semester to semester. Designed for professional mathematics teachers. This course will not count towards a degree in Applied Mathematics. Consent of the instructor required for enrollment. **Semester Hours:** 0 to 50

MCKE 5140 - Introduction to Modern Algebra

Studies the fundamental algebraic structures used in modern mathematics. Topics include groups, rings, fields, and polynomials. Note: This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: MATH 3000. Cross-listed with MATH 4140. **Semester Hours:** 3 to 3

MCKE 5210 - Higher Geometry I

Studies the foundations of modern geometry by examining axiomatic systems for various geometries, with an emphasis on non-Euclidean hyperbolic geometry. Note: This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: MATH 3000. Cross-listed with MATH 3210. **Semester Hours:** 3 to 3

MCKE 5310 - Introduction to Real Analysis I

Calculus of one variable, the real number system, continuity, differentiation, integration theory, sequence and series. Note: This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: MATH 2421 and 3000. Cross-listed with MATH 4310. **Semester Hours:** 3 to 3

MCKE 5408 - Applied Graph Theory

Introduces discrete structures and applications of graph theory to computer science, engineering, operations research, social science, and biology. Topics include connectivity, coloring, trees, Euler and Hamiltonian paths and circuits, matching and covering problems, shortest route and network flows. Note: This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: MATH 3000. Cross-listed with MATH 4408. **Semester Hours:** 3 to 3

MCKE 5409 - Applied Combinatorics

Major emphasis is on applied combinatorics and combinatorial algorithms, with applications in computer science and operations. Topics include general counting methods, generating functions, recurrence relations, inclusion-exclusion, and block designs. Note: This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: MATH 3000. Cross-listed with MATH 4409. **Semester Hours:** 3 to 3

Mechanical Engineering Courses (MECH)

MECH 1025 - CAD and Graphics for Mechanical Engineering

Introduction to 3-D computer-aided design software, solid modeling, industry-standard engineering drawing practices, and engineering graphics. Applications to mechanical engineering. Prereq: High School Geometry and Algebra. **Semester Hours:** 3 to 3

MECH 1208 - Special Topics: 1208-1298

Subject matter to be selected from topics of current technological interest. Credit to be arranged. **Semester Hours:** 1 to 3

MECH 2023 - Statics

A vector treatment of force systems and their resultants; equilibrium of trusses, beams, frames, and machines, including internal forces and three-dimensional configurations, static friction, properties of areas, distributed loads and hydrostatics. Prereq: PHYS 2311. Coreq: MATH 2411. Cross-listed with CVEN 2121. **Semester Hours:** 3 to 3

MECH 2030 - Analysis Techniques in Mechanical Engineering

Introduces experimental methods and mathematical analysis used in engineering. Spreadsheets are used to analyze engineering data and prepare tables and graphs. Introduction to computer programming using MATLAB. Prereq: MATH 1401 and MECH 1025. **Semester Hours:** 3 to 3

MECH 2033 - Dynamics

A vector treatment of dynamics of particles and rigid bodies, including rectilinear translation, central-force, and general motion of particles, kinematics of rigid bodies, the inertia tensor, plane motion of rigid bodies, energy and momentum methods for particles, systems of particles, and rigid bodies. Prereq: MECH 2023 or CVEN 2121. Cross-listed with CVEN 3111. **Semester Hours:** 3 to 3

MECH 2208 - Special Topics: 2208-2298

Subject matter to be selected from topics of current technological interest. Credit to be arranged. **Semester Hours:** 1 to 3

MECH 3010 - Elementary Numerical Methods and Programming

A development of basic numerical methods used to solve engineering problems. Introduction to MATLAB to implement numerical simulations. Coreq: MATH 3195 or (MATH 3191 and MATH 3200). **Semester Hours:** 3 to 3

MECH 3012 - Thermodynamics

Introduces thermodynamic properties and state relationships, processes and cycles with work and heat transfer. Applications of the first and second laws to energy-related engineering systems. Prereq: MATH 1401 and PHYS 2311. **Semester Hours:** 3 to 3

MECH 3021 - Introduction to Fluid Mechanics

Applies exact and approximate theories to engineering problems in fluids. Examples include potential flow theory, Euler's equations for inviscid fluids, Bernoulli's equations, Navier-Stokes equations, and pipe flow. Prereq: MECH 2033 or CVEN 3111 and MATH 2421. **Semester Hours:** 3 to 3

MECH 3022 - Thermodynamics II

Generalized thermodynamic cycles; general thermodynamic cycle considerations, compressor, expander, heat exchanger processes, refrigeration cycles, mixtures and combustion. Prereq: ENGR 3012 and MATH 2421. **Semester Hours:** 3 to 3

MECH 3023 - System Dynamics I: Vibrations

Modeling of dynamical systems. Analysis of single and multiple degree of freedom systems. Introduction to continuous systems. Prereq: CVEN 3111 or MECH 2033, MATH 3195 or MATH 3191 and MATH 3200 and MECH 3010. Coreq: CVEN 3121 or MECH 3043. **Semester Hours:** 3 to 3

MECH 3024 - Introduction to Materials Science

The development of the physical principles relating the structural features of materials to their observed properties. Prereq: PHYS 2311. **Semester Hours:** 3 to 3

MECH 3027 - Measurements

Principles of digital and analog measurements; systems for sensing, transporting, modifying, and outputting information; systematic and random error analysis. The laboratory includes a variety of instruments and components illustrating fundamental experimental measurement techniques and methods. Prereq: MECH 3030 & MATH 3195 or (MATH 3191 & MATH 3200). **Semester Hours:** 3 to 3

MECH 3028 - Laboratory of Mechanical Measurements

Modern techniques for Mechanical measurements. Laboratory includes techniques for the calibration of transducers and analysis of Statistical uncertainty. Data Acquisition Systems used for Signal acquisition and measurement of common mechanical quantities, such as displacement, velocity, acceleration and force. Design and characterization of a second order measurement system based on strain gages. Prereq: MECH 3032. Coreq: MECH 3027. **Semester Hours:** 1 to 1

MECH 3030 - Electric Circuits and Systems

Basic electrical engineering concepts for non-majors. Basic study of circuit analysis (RLC and Op-amps), transformers and motor equations, and simple electronic circuits (diodes and transistors). Prereq: MATH 2421 and PHYS 2331. Cross-listed with ELEC 3030. **Semester Hours:** 3 to 3

MECH 3031 - Fluids/Thermal Laboratory

Laboratory exercise in compressible and incompressible fluid flow; steady state and transient heat transfer. Prereq: ENGR 3012. Coreq: MECH 3021. **Semester Hours:** 1 to 1

MECH 3032 - Electric Circuits and Systems Lab

Basic electrical engineering lab for MECH majors. Coreq: MECH 3030 or ELEC 3030.

Semester Hours: 1 to 1

MECH 3034 - Properties of Engineering Materials

Experiments to determine material properties and the effect of processing on properties important in mechanical design. Materials include metal, polymers, and composites. Loadings include tension, compression, and bending under static, dynamic impact and creep states.

Coreq: MECH 3024 or (MECH 3043 or CVEN 3121). **Semester Hours:** 1 to 1

MECH 3035 - Design of Mechanical Elements

Review of mechanics of materials and stress analysis; detailed design of various machine elements such as fasteners, springs, brakes and gears. Includes design project. Prereq: MECH 3043, CVEN 3121. Coreq: MECH 3024. **Semester Hours:** 3 to 3

MECH 3042 - Heat Transfer

Basic laws of heat transfer by conduction, convection, and radiation with engineering design applications. Includes design project. Prereq: ENGR 3012 and MATH 2421. **Semester Hours:** 3 to 3

MECH 3043 - Strength of Materials

Application of exact and approximate theories of stress and displacement to engineering problems in solids. Examples include torsion of rods and bending of beams. Combined stresses, principal stresses and energy methods are examined. Prereq: MECH 2023, CVEN 2121. Cross-listed with CVEN 3121. **Semester Hours:** 3 to 3

MECH 3065 - Intermediate Dynamics

An in-depth study of Newtonian dynamics with constraints. Mechanism synthesis using graphical and analytic techniques. Prereq: MECH 2033 or CVEN 3111 and MECH 3010.

Semester Hours: 3 to 3

MECH 3145 - Manufacturing Processes Design

Basic manufacturing background will be provided to engineering students in order to: (1) apply manufacturing specifications to the design of mechanical devices, and (2) communicate with technical personnel in a production environment. Topics cover metal casting, bulk and sheet metal forming, material removal and joining and fastening processes. Prereq: MECH 1025.

Semester Hours: 3 to 3

MECH 3147 - Bioengineering

Explores engineering principles that have application in biology, and principles discovered in biology which may have application in engineering. Some topics covered are: cell biology, molecular biology, viscoelasticity, physical theory of plant cell growth aerodynamics, fluid mechanics, biofluid dynamics and animal flight. Prereq: Junior standing in engineering.

Semester Hours: 3 to 3

MECH 3208 - Special Topics

Subject matter to be selected from topics of current technological interest. Credit to be arranged.

Semester Hours: 1 to 3

MECH 3840 - Independent Study

This category is intended for upper-division level special topics which students may wish to pursue on their own initiative, with guidance from a professor who agrees to limited consultation on the work and to award credit when the project is completed. **Semester Hours:** 1 to 3

MECH 4020 - Biomechanics

Static and dynamic biomechanical analysis, effects of mechanical loading on bone and cartilage, design considerations in orthopaedic devices, muscle function, biomechanics of human movement, cardiovascular biomechanics. **Semester Hours:** 3 to 3 **When Offered:** SUMMER

MECH 4023 - System Dynamics II: Controls

Introduces the Laplace Transformation. Control system analysis using root locus and frequency response methods. Basic compensation techniques are to be covered. Prereq: MECH 3023.

Semester Hours: 3 to 3

MECH 4024 - Mechanical Behavior of Materials

Studies the response of materials to applied stresses. Emphasis is on the understanding of the relationships between structure and properties. Fracture mechanics and fatigue are introduced. Prereq: MECH 3024. **Semester Hours:** 3 to 3

MECH 4035 - Senior Design I

Group and individual projects to design engineering components and systems. Design methodology, product specs, creativity, design reviews, communication, presentations, and report writing are emphasized. MECH 4035 and MECH 4045 form a one year sequence and must be taken consecutively. Prereq: MECH 3035 and MECH 3042. **Semester Hours:** 3 to 3

MECH 4045 - Senior Design II

Student teams manufacture and construct and/or redesign mechanical parts or assemblies that they designed in previous course (MECH 4035). A proposal, oral progress reports, and a final written report and demonstration are required. MECH 4035 and MECH 4045 form a one year sequence and must be taken consecutively. Prereq: MECH 4035. **Semester Hours:** 3 to 3

MECH 4110 - Numerical Methods for Engineers

Introduces numerical analysis. Solution of linear and nonlinear equation systems. Numerical methods for ordinary and partial differential equations. Engineering applications. Prereq: MATH 3195 or (3191 and 3200) and some programming experience. **Semester Hours:** 3 to 3

MECH 4112 - Internal Combustion Engines

Students obtain a sufficient understanding of internal combustion engines that will allow them to perform analysis of combustion thermodynamics and actual cycles, including heat addition,

heat loss, air/fuel flow, and engine design and performance. Prereq: ENGR 3012. **Semester Hours:** 3 to 3

MECH 4114 - Designing with Composites

Analysis and design of polymers and polymer-based composites. Failure criteria include static strength, stiffness, creep, fatigue, impact and fracture toughness. Design criteria include strength-to-weight ratio and cost-to-strength ratio. Prereq: MECH 3043/CVEN 3121. Cross-listed with MECH 5114. **Semester Hours:** 3 to 3

MECH 4115 - Applied Plasticity and Creep

Plastic deformation of materials applied to bulk and sheet metal manufacturing processes such as extrusion, rolling and sheet metal. Linear and nonlinear viscoelastic creep with applications to plates and shells. Prereq: MECH 3043. Cross-listed with MECH 5115. **Semester Hours:** 3 to 3

MECH 4116 - Robotics

Introduces kinematics, dynamics, and control of robot manipulators. Emphasis is placed on computer use in control of actual robots and in computer simulation of mathematical models of robots. Students must turn in a project report based on the computer simulation. Prereq: MECH 3065. **Semester Hours:** 3 to 3

MECH 4120 - Methods of Engineering Analysis

Selected topics from real analyses with applications to engineering analyses. Topics include vector calculus, ordinary differential equations, partial differential equations, and calculus of variations. Prereq: MATH 3195 or (MATH 3191 and MATH 3200). Cross-listed with MECH 5120. **Semester Hours:** 3 to 3

MECH 4132 - Power Plant Systems Design

Detailed engineering analysis and design of a thermal power plant, including heat balance, selection of equipment (boiler, turbines, heat exchangers, pumps, cooling tower), performance evaluation, economic evaluation and feasibility studies. Prereq: MECH 3022 **Semester Hours:** 3 to 3

MECH 4135 - Mechanical Systems Design

Detailed engineering design of mechanical systems. Students work in teams on a project selected for entire class. Projects are similar to typical ones from industry. Course stresses creativity, synthesis, design judgment, and analysis of real-world problems. Oral and written presentations are required. Prereq: MECH 3035. **Semester Hours:** 3 to 3

MECH 4136 - Control Systems Design

Detailed engineering design of control systems. Students work in teams on a project selected for entire class. Projects are similar to typical ones from industry. Course stresses creativity, synthesis, design judgment, and analysis of real-world problems. Oral and written presentations are required. Prereq: MECH 4023. **Semester Hours:** 3 to 3

MECH 4141 - Fluid Mechanics

Viscous incompressible fluid flows. Topics include derivation of equations governing viscous compressible fluid motion; specializations to simple flows; boundary-layer theory; similarity solutions; introduction to turbulence and Reynolds stresses. Prereq: MECH 3021. Cross-listed with MECH 5141. **Semester Hours:** 3 to 3

MECH 4142 - Thermal Systems Design

Detailed engineering design of thermal/fluids systems. Students work in teams on a project selected for entire class. Projects are similar to typical ones from industry. Course stresses creativity, synthesis, design judgment, and analysis of real-world problems. Oral and written presentations are required. Prereq: ENGR 3012 and MECH 3021. **Semester Hours:** 3 to 3

MECH 4147 - Engineering Economy

Applies economic and financial principles to evaluation of engineering alternatives. Calculation of annual costs, present worth, and prospective rates of return on investment. Review of systems analysis techniques, including simulation, linear programming, and project scheduling. Prereq: Junior standing in engineering. Cross-listed with CVEN 4077. **Semester Hours:** 3 to 3

MECH 4155 - Air Conditioning Design

Basic principles of heating and ventilating systems. Determination of heating and cooling loads. Design and layout of heating, ventilating, and air conditioning systems. Includes design project. Prereq: MECH 3022 and MECH 3042. **Semester Hours:** 3 to 3

MECH 4160 - Introduction to Operations Research

Introduces operations research, including mathematical programming models, models for decision alternatives, for procurement and inventory, and for queuing operations. Prereq: MATH 3195 or (MATH 3191 and MATH 3200). **Semester Hours:** 3 to 3

MECH 4163 - Rigid-Body Dynamics

Review of Newtonian dynamics, Lagrange's equations for particles, systems, and rigid bodies. Conservative and non-conservative systems, moments of inertia, principal axes, angular momentum and Euler equations. Illustrations from spinning bodies, including tops, gyro-compass and rotating machinery. Prereq: MECH 2033 or CVEN 3111, MATH 3195 or (MATH 3191 and MATH 3200). Cross-listed with MECH 5163. **Semester Hours:** 3 to 3

MECH 4166 - Computerized Numerical Control (CNC) Manufacturing

Modern manufacturing engineering concepts using computerized numerical control (CNC). The students learn state-of-the-art CNC methodologies, including digitizing, drawing, generating codes, and manufacturing, using modern CNC machines. Prereq: Junior standing in engineering. Cross-listed with MECH 5166. **Semester Hours:** 3 to 3

MECH 4175 - Finite Element Analysis in Machine Design

Students learn basic theory of finite element analysis (FEA) as it applies to stress analysis and design of mechanical components. Commercial package will be used giving students practical

experience in the use of FEA. Prereq: MECH 3035. Cross-listed with MECH 5175. **Semester Hours:** 3 to 3

MECH 4195 - Solid Modeling

This is a basic course in solid modeling using Solid Works computer software. Topics include feature-based modeling, parametric part design, parent/child relationships, use of datums, patterning, relations, sweeps, blends, assembly, tolerancing, rapid prototyping, CNC manufacturing, CMM inspection, and Step standards. Prereq: Junior standing in engineering. **Semester Hours:** 3 to 3

MECH 4208 - Special Topics

Subject matter to be selected from topics of current technological interest. Credit to be arranged. Prereq: Senior standing or permission of instructor. **Semester Hours:** 1 to 3

MECH 4840 - Independent Study

This category is intended for upper division level special topics which students may wish to pursue on their own initiative, with guidance from a professor who agrees to limited consultation on the work and to award credit when the project is completed. **Semester Hours:** 1 to 3

MECH 5020 - Biomechanics

Static and dynamic biomechanical analysis, effects of mechanical loading on bone and cartilage, design considerations in orthopaedic devices, muscle function, biomechanics of human movement, cardiovascular biomechanics. **Semester Hours:** 3 to 3 **When Offered:** *SUMMER*

MECH 5024 - Mechanical Behavior of Materials

Students will learn about the mechanical behavior of materials using a multi-scale, materials oriented approach. The course will relate how atomistic and molecular mechanisms relate to macroscopic and continuum properties of materials across acute and long-term time scales. Prereq: MECH 3024, 3145 and 3043 (or equivalent courses). **Semester Hours:** 3 to 3 **When Offered:** *FALL*

MECH 5110 - Numerical Methods for Engineers

Introduces numerical analysis. Solution of linear and nonlinear equation systems. Numerical methods for ordinary and partial differential equations. Engineering applications. Prereq: Graduate standing or permission of instructor. Cross-listed with MECH 4110. **Semester Hours:** 3 to 3

MECH 5114 - Designing with Composites

Analysis and design of polymers and polymer-based composites. Failure criteria include static strength, stiffness, creep, fatigue, impact and fracture toughness. Design criteria include strength-to-weight ratio and cost-to-strength ratio. Prereq: Graduate standing or permission of instructor. Cross-listed with MECH 4114. **Semester Hours:** 3 to 3

MECH 5115 - Applied Plasticity and Creep

Plastic deformation of materials applied to bulk and sheet metal manufacturing processes such as extrusion, rolling and sheet metal. Linear and nonlinear viscoelastic creep with applications to plates and shells. Prereq: Graduate standing or permission of instructor. Cross-listed with MECH 4115. **Semester Hours:** 3 to 3

MECH 5120 - Methods of Engineering Analysis

Selected topics from real analyses with applications to engineering analyses. Topics include vector calculus, ordinary differential equations, partial differential equations and calculus of variations. Prereq: Graduate standing or permission of instructor. Cross-listed with MECH 4120. **Semester Hours:** 3 to 3

MECH 5121 - Introduction to Fluid Dynamics

Physical properties of gases and liquids; kinematics of flow fields; equations describing viscous, heat-conducting Newtonian fluids. Exact solutions and rational approximations for low- and high-speed dissipative flows, surface and internal waves, acoustics, stability, and potential flows. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

MECH 5122 - Macroscopic Thermodynamics

Axiomatic presentation of fundamentals of classical thermodynamics (first law); energy, work and heat. Equilibrium, reversible, and irreversible processes; entropy production and the second law. Applications to stability and phase equilibrium. Irreversible thermodynamics and the Onsager reciprocal relations. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

MECH 5123 - Introduction to Continuum Mechanics

Cartesian tensor notation. Deformation, strain, strain rate and compatibility. Definition of stress vector and tensor. Fundamental balance laws of mass, momentum and energy; entropy production inequality. Constitutive equations for elastic, viscoelastic and plastic materials; ideal, compressible, and viscous fluids. Beltrami-Mitchell and Navier-Stokes equations. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

MECH 5124 - Yield-Limited Behavior of Materials

Analysis of material behavior within the "elastic range," with emphasis on the phenomenon of yield and factors that influence it. Examination of the theory of dislocations; study of strengthening mechanisms in solids. Consideration of various time-dependent but reversible (inelastic) deformation phenomena. Presentation of appropriate engineering case studies to augment various topics. Prereq: MECH 5143. **Semester Hours:** 3 to 3

MECH 5133 - Theory of Inelastic Materials

Mathematical theory of linear viscoelasticity. Finite elements models. Solution of boundary-value problems in linear viscoelasticity. Non-Newtonian flow. Selected topics in nonlinear material behavior. Prereq: MECH 5143 or permission of instructor. **Semester Hours:** 3 to 3

MECH 5141 - Viscous Flow

Viscous incompressible fluid flows. Topics include derivation of equations governing viscous compressible fluid motion; specializations to simple flows; boundary-layer theory; similarity solutions; introduction to turbulence and Reynolds stresses. Prereq: Graduate standing or permission of instructor. Cross-listed with MECH 4141. **Semester Hours:** 3 to 3

MECH 5142 - Statistical Thermodynamics

Introduces the molecular interpretation and calculation of thermodynamic properties of matter, thermodynamic probability, distribution functions, Schrodinger wave equations and solutions and ensemble theory. Applications to ideal and real gases, solids, liquids, radiation, conduction electrons, and chemical equilibrium. Prereq: Graduate standing or permission of instructor.

Semester Hours: 3 to 3

MECH 5143 - Theory of Elasticity

Review of the basic equations of linear theory of elasticity. St. Venant torsion and flexure. Plane strain, plane stress, and generalized plane stress. Application of conformal mapping and Fourier transform techniques. Prereq: Graduate standing or permission of instructor. **Semester**

Hours: 3 to 3

MECH 5144 - Plasticity and Creep

Inelastic deformation of materials such as metals, alloys, glasses, composites and polymers from the phenomenological and structural point of view. Case studies of plastic and creep deformations in engineering materials. Prereq: MECH 5143. **Semester Hours:** 3 to 3

MECH 5161 - Compressible Flow

Energy, continuity, and momentum principles applied to compressible flow; one-, two-, and three-dimensional subsonic, supersonic and hypersonic flows. Normal and oblique shocks, and method of characteristics. Prereq: MECH 5141 or permission of instructor. **Semester Hours:** 3 to 3

MECH 5162 - Heat Transfer I

Review of equations governing transport of heat by conduction and radiation. Analytical and numerical solution of boundary value problems representative of heat conduction in solids. Radiation properties of solids, liquids and gases; transport of heat by radiation. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

MECH 5163 - Dynamics

Review of Newtonian dynamics, Lagrange's equation for particles, systems and rigid bodies. Conservative and non-conservative systems, moments of inertia, principal axes, angular momentum and Euler equations. Illustrations from spinning bodies, including tops, gyro-compass and rotating machinery. Prereq: Graduate standing or permission of instructor. Cross-listed with MECH 4163. **Semester Hours:** 3 to 3

MECH 5166 - Computerized Numerical Control (CNC) Manufacturing

Modern manufacturing engineering concepts using computerized numerical control (CNC). The students learn state-of-the-art CNC methodologies, including digitizing, drawing, generating codes, and manufacturing using modern CNC machines. Prereq: Graduate standing or permission of instructor. Cross-listed with MECH 4166. **Semester Hours:** 3 to 3

MECH 5172 - Heat Transfer II

Review of equations governing transport of heat in fluids in motion. Description of heat transfer in free and forced convection, including laminar and turbulent flow. Dimensional analysis and heat transfer correlations, numerical methods and combined heat transfer mechanisms. Prereq: MECH 5141 or permission of instructor. **Semester Hours:** 3 to 3

MECH 5175 - Finite Element Stress Analysis

Students learn basic theory of finite element analysis (FEA) as it applies to stress analysis and design of mechanical components. Commercial package will be used giving students practical experience in the use of FEA. Prereq: MECH 5143 or permission of instructor. Cross-listed with MECH 4175. **Semester Hours:** 3 to 3

MECH 5208 - Special Topics

Subject matter to be selected from topics of current technological interest. Credit to be arranged. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 1 to 3

MECH 5840 - Independent Study

Available only through approval of the graduate advisor. Subjects arranged to fit needs of the particular student. Prereq: Graduate standing. **Semester Hours:** 1 to 3

MECH 5950 - Master's Thesis

Semester Hours: 1 to 6

MECH 5960 - Master's Report

Master of Science in Engineering report. Students seeking the Master of Science in Engineering, and who do not choose to do a thesis, must complete an individual project of an investigative and creative nature under the supervision of a member of the graduate faculty. **Semester Hours:** 3 to 3

MECH 5970 - Graduate Problem Course

The graduate problem course is for the solution of specific problems in MECH specialty areas. Each student is assigned a set of problems of some difficulty requiring the use of the literature of the various areas covered. Prereq: 15 hours of graduate level courses in MECH. **Semester Hours:** 3 to 3

MECH 8990 - Doctoral Dissertation

Semester Hours: 1 to 10 **When Offered:** FALL SPR

Management Courses (MGMT)

MGMT 1000 - Introduction to Business

This course will introduce students to the nature and role of business in our society. Problems confronting business are surveyed from a management, financial, economic and marketing viewpoint. Career opportunities in business are also considered. Students are advised to take this course during their freshman year and may not take it in the junior or senior years. Prereq: Open to freshman and sophomores, non-degree students and music majors at all levels.

Semester Hours: 3 to 3 **When Offered:** *FASPRSUM*

MGMT 1111 - Business Freshman Seminar

This course introduces students to the nature and role of business in our society. Career opportunities in business are also considered. This course is designed to assist first year students transition to life on campus. The course content is integrated with various activities designed to familiarize 1st year students with school resources, develop critical thinking and writing skills and build relationships critical to ongoing academic success. Students are advised to take this course during the first semester of their freshman year. Note: Credit will not be given for both MGMT 1111 and MGMT 1000. Prereq: Open only to new Freshman. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

MGMT 2939 - Internship

Semester Hours: 1 to 3

MGMT 3000 - Managing Individuals and Teams

Focuses on helping students understand how to manage individuals and groups effectively. Students are encouraged to know themselves better and how their behavior affects how they deal with organizational situations; they also learn how individuals differ and how to design, manage and work in a team. This is a business core course therefore a grade of a 'c' or better must be earned to satisfy graduation requirements. Prereq: Junior standing. **Semester Hours:** 3 to 3

MGMT 3010 - Managing People for a Competitive Advantage

Provides an overview of the management of human resources in organizations. Areas of study include recruitment, selection, training, career development, performance appraisal, compensation and employee or labor relations. **Semester Hours:** 3 to 3

MGMT 3111 - Business Transfer Student Seminar

This course is designed to assist first year transfer students transition to UC Denver. The course includes various activities designed to familiarize students with University and Business School resources, develop critical thinking, writing, time management and study skills, and build relationships critical to ongoing academic success. Students are advised to take this course during their first or second semester at UC Denver. Concurrent registration in MGMT 3000 is required. Prereq: Junior standing. Cross-listed with MGMT 3000. **Semester Hours:** 1 to 1

MGMT 3830 - Business and Sustainability

Business activity can have significant environmental and societal impacts. This course examines some of the ways that companies and consumers are reducing their impact on communities and the environment. Sustainability issues will be considered from a management, finance, marketing, and consumer perspective. Climate change and renewable energy will be featured topics in the class. Prereq: MKTG 3000. Cross-listed with MGMT 4830, BUSN 6830. **Semester Hours:** 3 to 3

MGMT 3939 - Internship

Supervised experiences involving the application of concepts and skills in an employment situation. Prereq: senior standing and 3.5 GPA. **Semester Hours:** 1 to 3

MGMT 4100 - Managing Cultural Diversity

Practical and policy issues that arise from living and working in a multicultural world in order to promote informed, effective management. Particular emphasis is given to the development of innovative approaches to managing the challenges posed by a work force that differs in characteristics, such as race, gender, ethnicity, age, lifestyle and disability. Prereq: MGMT 3000. **Semester Hours:** 3 to 3 **When Offered:** FALL SPR

MGMT 4230 - Sports Management

This course is designed as a speaker series of sports and entertainment industry elite focusing on: industry trends, strategic planning, managing revenue streams, managing media, managing for effectiveness, managing post-merger integration, leadership and leading change. **Semester Hours:** 3 to 3 **When Offered:** FALL SPR

MGMT 4330 - Mastering Management

Designed to give students hands on practice developing critical management skills, such as communication, conflict handling, negotiation, giving feedback, public speaking, meeting management and self management. Prereq: MGMT 3000 with a grade of 'C' or better. **Semester Hours:** 3 to 3

MGMT 4350 - Leading Organizational Change

Focuses on the tasks and skills of a leader in leading organizational changes. Topics include: diagnosing problems, creating urgency, building the change team, creating a vision, implementing change strategies, sustaining the momentum and making change stick. These tasks and skills are studied in various organizational change contexts. Prereq: MGMT 3000 with a grade of 'c' or better and MGMT 4370. **Semester Hours:** 3 to 3

MGMT 4370 - Organization Design

Examines how to structure organizations to perform effectively. Addresses the effects of computer-based information technologies (e.g. intranets, extranets, and the internet) on firm structure, strategy, and culture. Emphasis is placed on the role of the task, technology, and the environment as constraints on organizational design. Prereq: MGMT 3000. **Semester Hours:** 3 to 3

MGMT 4400 - Environments of International Business

An overview of the environmental complexities that arise when business activities and firms cross national borders. Key international business environmental complexities associated with country differences, cross-border trade and investment, and global monetary system are examined. Prereq: MGMT 3000 and junior standing. Cross-listed with INTB 4400. **Semester Hours:** 3 to 3

MGMT 4410 - Operations of International Business

Focuses on the impact of environmental factors on international business operations and the identification and analysis of complex strategic and operational issues facing business firms in global markets. The strategies and structures of international businesses, alternative foreign market entry modes, and the unique roles of various business functions at international business firms are explained and assessed. Prereq: INTB 4400 or MGMT 4400. Cross-listed with INTB 4410. **Semester Hours:** 3 to 3

MGMT 4420 - Human Resources Management: Staffing

Methods, theories, research findings, and issues in staffing. Topics include performance-based framework for selecting employees, establishing performance expectations, planning the recruitment process and finding valid and useful tools to select the best candidate. Prereq: MGMT 3010 (may be taken concurrently). **Semester Hours:** 3 to 3

MGMT 4430 - Human Resources Management: Training

Methods, theories, research findings, and issues in training. Topics include how to design, deliver, and evaluate training programs. Prereq: MGMT 3010 (may be taken concurrently). Cross-listed with MGMT 6720. **Semester Hours:** 3 to 3

MGMT 4440 - Human Resource Management: Performance Management

Focuses on the design and implementation of human resource management systems to assess and enhance employee performance. Areas of study include performance definition and measurement, goal setting, feedback, employee development, rater training, and pay for performance. Prereq: MGMT 3010 (may be taken concurrently). **Semester Hours:** 3 to 3

MGMT 4450 - Human Resources Management: Compensation

Develop and administer pay systems considering economic and social pressures, traditional approaches and strategic choices in managing compensation. Current theory research and practice. Students design a compensation strategy and a system that translates that strategy into reality. Prereq: MGMT 3010 (may be taken concurrently). Cross-listed with MGMT 6740. **Semester Hours:** 3 to 3

MGMT 4500 - Business Policy and Strategic Management

Emphasis is on integrating the economic, market, social or political, technological, and components of the external environment with the internal characteristics of the firm; and deriving through analysis the appropriate interaction between the firm and its environment to facilitate accomplishment of the firm's objectives. Open only to business students in their graduation semester. This is a business core course therefore a grade of 'c' or better must be

earned to satisfy Business graduation requirements. Prereq: Graduation term, senior standing and completion of all business core courses with a grade of a 'C' or better. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

MGMT 4770 - Human Resource Information Systems

Focuses on the management of human resource information systems. It addresses how modern information systems tools can provide better human resource intelligence to users in today's enterprises, allowing them to make better decisions. It examines how information about workforce and human resource management processes can be collected and used to set targets to meet strategic objectives, monitor performance, receive notifications when performance is below expectations and respond immediately by taking corrective actions. Prereq: MGMT 3000. **Semester Hours:** 3 to 3

MGMT 4780 - Preparing A Business Plan

This course is designed to assist students who want to turn their new business idea into a viable new business concept through the development of a comprehensive business plan. This course teaches the process and the key steps for preparing a business plan for a new business venture. A well developed business plan is critical to new venture success and includes the following: analysis of the potential demand for the product or service and the potential customers; identifies competitive advantages and strategies, and marketing strategies; generates pro forma financial projections; and, describes the management team needed successfully lead the business. Note: For business majors only. Can be applied to management emphasis and to Entrepreneurship Certificate. Prereq: MGMT 3000, MKTG 3000 and BLAW 3000 strongly recommended. Cross-listed with ENTP 3780. **Semester Hours:** 3 to 3

MGMT 4830 - Business and Sustainability

Business activity can have significant environmental and societal impacts. This course examines some of the ways that companies and consumers are reducing their impact on communities and the environment. Sustainability issues will be considered from a management, finance, marketing, and consumer perspective. Climate change and renewable energy will be featured topics in the class. Prereq: MKTG 3000. Cross-listed with MGMT 3830, BUSN 6830. **Semester Hours:** 3 to 3

MGMT 4832 - Law & Negotiation in the Sports and Entertainment Industry

This course provides an overview of major legal issues in the sports and entertainment industries. Students develop the skills required to negotiate contracts in these industries. Topics include contracts, copyright, trademark, employment and tort law principles relevant in the sports and entertainment fields. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

MGMT 4834 - Global Sports & Entertainment Management

Through 2 weeks of visiting organizations with industry elite in London a broader perspective on the sports and entertainment industry is gained. Students will be asked to do advance reading, participate in discussions, keep a journal and write a reflection paper at the end of the experience. Site visits(to be confirmed) include: Arsenal Football Club, Premier League, the O2 Arena, NHL and NBA regular season games in London, 2012 Olympics Committee, Formula

One, Hollywood Studio-International Finance Office, Theatre, Lord's Cricket Ground, All England Lawn Tennis Club/Wimbledon and the Office of the Minister of Sport. Prereq: MGMT 3000. Cross-listed with MGMT 6834. **Semester Hours:** 3 to 3

MGMT 4840 - Independent Study

Semester Hours: 1 to 8

MGMT 4900 - Project Management and Practice

Covers the factors necessary for successful management of system development or enhancement projects. Both technical and behavioral aspects of project management are discussed. The focus is on management of development for enterprise-level systems. Topics include: managing the system life cycle; requirements determination, logical design, physical design, testing, implementation; system and database integration issues; network and client-server management; metrics for project management and system performance evaluation; managing expectations: superiors, users, team members and others related to the project; determining skill requirements and staffing the project; cost-effectiveness analysis; reporting and presentation techniques; effective management of both behavioral and technical aspects of the project; change management. Note: Successful completion of this course meets the educational requirements to sit for both the PMP and CAPM exams. Prereq: ISMG 3000. Cross-listed with ISMG 4900. **Semester Hours:** 3 to 3

MGMT 4950 - Special Topics in Management

A number of different topics in management are offered under this course number. Consult the 'Schedule Planner' for current course offerings. Prerequisites vary depending on the topic and instructor requirements. Cross-listed with MGMT 5800. **Semester Hours:** 3 to 3

MGMT 5800 - Special Topics in Management

A number of different topics in management are offered under this course number. Consult the Schedule Planner for current course offerings. Prerequisites vary depending on the topic and instructor requirements. Cross-listed with MGMT 4950. **Semester Hours:** 3 to 3

MGMT 5939 - Internship

Supervised experiences involving the application of concepts and skills in an employment situation. Prereq: 21 semester hours and 3.5 GPA. **Semester Hours:** 1 to 3

MGMT 6020 - Leadership in Difficult Times

The test of a leader often is their ability to lead their organizations through difficult times and crises. Such situations could be downsizing, product defects, ethical violations, a terrorist attack or a natural disaster. Successful management of these situations can strengthen and renew the organization. Inability to manage these situations can tarnish the organization's reputation and threaten its survival. This course examines leadership under stress and provides frameworks for categorizing and analyzing these difficult situations. The course also addresses strategies that leaders can use to enable their organizations to manage, recover and learn from these difficult experiences. **Semester Hours:** 3 to 3

MGMT 6040 - Managing Global Talent

This course has two objectives: (1) to understand the impact of cultural differences in the management of people in multinational firms; and (2) to compare and contrast critical human resource issues in the contexts of domestic and international operations. Topics include recruitment, staffing, training, performance appraisal, compensation, and labor and management relations in markets around the world. (This course qualifies as an international elective for the MS in International Business program.) Prereq: MGMT 6380 or BUSN 6520 (or equivalent). Cross-listed with INTB 6040. **Semester Hours:** 3 to 3

MGMT 6320 - Leading Organizational Change

Instruction in the analysis, diagnosis, and resolution of problems in organizing people at work. Models of organizational change are examined. Group experiences, analysis of cases and readings are stressed. Prereq: BUSN 6520, may be taken concurrently. **Semester Hours:** 3 to 3

MGMT 6360 - Designing Effective Organizations

Examines how to design organizations within the context of environmental, technological, and task constraints. The emphasis is on learning how to recognize and correct structural problems through the analysis of existing organizations in which the students are involved. Prereq: BUSN 6520, may be taken concurrently. **Semester Hours:** 3 to 3

MGMT 6380 - Managing People for Competitive Advantage

Focuses on the management of human resources in organizations. Oriented toward the practical application of human resources management principles in areas such as: equal employment opportunity, affirmative action, human resources planning, recruitment, staffing, benefits and compensation, labor relations, training, career management, performance management, and occupational health and safety. Prereq: BUSN 6520, may be taken concurrently. **Semester Hours:** 3 to 3

MGMT 6710 - Human Resources Management: Staffing

Focuses on the design and implementation of human resources management systems to recruit and select employees. Areas of study include planning, job analysis, external and internal recruitment and selection, and decision making. Prereq: MGMT 6380. **Semester Hours:** 3 to 3

MGMT 6720 - Human Resources Management: Training

Methods, theories, research findings, and issues in training. Topics include how to design, deliver, and evaluate training programs. Prereq: MGMT 6380. Cross-listed with MGMT 4430. **Semester Hours:** 3 to 3

MGMT 6730 - Human Resources Management: Performance Management

Focuses on the design and implementation of human resources management systems to assess and enhance employee performance. Areas of study include performance measurement, rater training, goal setting and feedback. Prereq: MGMT 6380. **Semester Hours:** 3 to 3

MGMT 6740 - Human Resources Management: Compensation

Develop and administer pay systems considering economic and social pressures, traditional approaches and strategic choices in managing compensation. Current theory research and practice. Students design a compensation strategy and a system that translates that strategy into reality. Prereq: MGMT 6380 and BUSN 6530. Cross-listed with MGMT 4450. **Semester**

Hours: 3 to 3

MGMT 6750 - HRM: Investing in People: HR Analytics

Managing talent-organization and deployment-and connections between talent and strategy in organizations. Rooted in a systematic, logical approach that challenges traditional ideas.

Stresses the logical connections between progressive HR practices and firm performance and the use of data to demonstrate financial impact of the connections. **Semester Hours:** 3 to 3

MGMT 6780 - Small Business Management

The primary objective of this course is to teach future small business owners the practical aspects of small business management and to develop the skills necessary to improve the odds of success. The course will consider strategies to leverage limited resources for maximum effect in managing the small business enterprise. Also, this course covers small organization and group behavior, performance, leadership and motivation in small business settings and focuses on the owner/manager as the principal success factor in the context of a small organization.

Semester Hours: 3 to 3

MGMT 6800 - Special Topics in Management

Current topics in management will be occasionally offered. Consult the 'Schedule Planner' for specific offerings or contact an advisor for information. **Semester Hours:** 3 to 3

MGMT 6801 - Career Strategies

The downsizing, restructuring, and re-engineering so prevalent in U.S. industries and companies have strongly affected the job and career market. Every individual must sharpen his/her competencies and skills in order to compete effectively in the changing job market. This course is designed to assist students in understanding and operating in this difficult job market. Using many of the concepts that organizations use in their strategy formulation process, and coupled with individual techniques and skills proven effective in job searches and career planning, this course prepares students to deal with the issues involved in finding a job and pursuing a career. **Semester Hours:** 3 to 3

MGMT 6803 - Visionary Leadership

Examines the challenges faced by visionary leaders and the approaches used by these individuals (creation, articulation, and implementation of vision) to transform organizations. Participants utilize these approaches employed by effective leaders to develop plans for their own organizational success. Group experiences, applied readings, and videos are used to clarify the opportunities available. Prereq: BUSN 6520, may be taken concurrently. **Semester Hours:** 3 to 3

MGMT 6804 - Bargaining and Negotiation

Designed as a seminar in bargaining, negotiation and interpersonal conflict management. Through simulations, role plays and personal experience, students practice and develop their negotiation skills and see how negotiations differ depending on the type of situation encountered. Specific topics covered include: the nature of negotiation, the role of the negotiation context, interdependence and power, strategies and tactics of distributive and integrative bargaining, negotiation ethics and interpersonal conflicting resolution. Prereq: BUSN 6520, may be taken concurrently. **Semester Hours:** 3 to 3

MGMT 6806 - Corporate Entrepreneurship

Competitive performance in a global economy requires continuous innovation and new business growth. The creation and development of new ventures is a primary strategy for internally-generated growth. Managing innovation and new ventures requires attitudes, knowledge, and practices different from those usually required for the management of mature business units. This course provides the perspective, knowledge, and specific skills required for successful entrepreneurial management. **Semester Hours:** 3 to 3

MGMT 6808 - Leadership Development

Instruction in the design and practice of leadership development. Case studies of effective organizations will be examined and a variety of assessment and development activities will be completed as part of the course. Students will learn how to develop others while experiencing the development techniques first hand. **Semester Hours:** 3 to 3

MGMT 6820 - Management Field Studies

The objective of this course is to provide an opportunity for the in-depth examination of an actual management problem in a local organization. Much like an independent study conducted under faculty guidance, each student will execute a unique project suited to his or her interests. Priority is given to MGMT students. **Semester Hours:** 3 to 3

MGMT 6821 - Managing for Sustainability

This course will consider how companies are using social responsibility as a competitive advantage. The so-called green revolution is calling for organizations to take on increasing responsibility for environmental conservation, employee well being, and community development. This course considers how organizations can work with various stockholders (employees, customers, communities, society-at-large) to develop and promote mutually beneficial products and solutions to key social needs and concerns. **Semester Hours:** 3 to 3

MGMT 6822 - Business Ethics and Corporate Social Responsibility

Covers business ethics and corporate social responsibility in the global contexts of employment, marketing, product liability, the environment and other areas. Students compare ethical theories, including utilitarianism, Kantian, Rawlsian, stockholder, stakeholder and social contract and apply some or all of these theories to actual and hypothetical case studies. The doctrine of corporate social responsibility is defined and explored and diverging views of corporate social responsibility are discussed. Examples of how corporate social responsibility can increase a company's goodwill and net income are analyzed. **Semester Hours:** 3 to 3

MGMT 6823 - The Sustainable Business Opportunity

This course examines the negative impact of a rapidly growing global economy on the natural and human environment. It shows that the need to create a more sustainable global economy represents a huge opportunity for business and how sustainability-based strategies drive innovation, competitive advantage and improved financial performance. It will examine both environmental aspects of sustainability like green supply chains, lifecycle analysis, energy and water efficiency, as well as initiatives that nurture and enhance the value of our human resources such as community development, employee and customer relations, employee wellness, telecommuting, and other stakeholder engagement in sustainability. **Semester Hours:** 3 to 3 **When Offered:** FALL SPR

MGMT 6824 - Sustainable Business/CSR Field Study

Gain practical, hands-on experience with aspects of sustainable business and/or corporate social responsibility. Work with a local company/non-profit/or government organization under the direction of an executive to conduct a sustainability-focused project which is important to the organization's sustainability initiative. Prereq: Completion of one or more sustainability focused courses or permission of instructor. **Semester Hours:** 3 to 3 **When Offered:** FALL

MGMT 6830 - Sports and Entertainment Management

This course is designed as a speaker series of sports and entertainment industry elite focusing on: industry trends, strategic planning, managing revenue streams, managing media, managing for effectiveness, managing post-merger integration, leadership and leading change. **Semester Hours:** 3 to 3

MGMT 6832 - Law and Negotiation in the Sports/ Entertainment Industries

Provides an overview of major legal issues in the sports and entertainment industries. Students develop the skills required to negotiate contracts in these industries. Topics include contracts with athletes (agency, player and sponsorship), stadium financing and sports franchises, labor law and collective bargaining agreements, entertainment contracts in the music, film and live theater fields and copyright, trademark and tort law principles in the sports and entertainment industries. **Semester Hours:** 3 to 3

MGMT 6834 - London Calling: Global Sports and Entertainment Management

Through 2 weeks of visiting organizations and talking with industry elite in London a broader perspective on the Sports and Entertainment Industry is gained. Students will be asked to do advanced reading, participate in discussions, keep a journal and write a reflection paper at the end of the experience. Site visits (to be confirmed) include: Arsenal Football Club, Premier League, the O2 Arena, NHL and NBA regular season games in London, 2012 Olympics Committee, Formula One, Hollywood Studio-International Finance Office, Theatre, Lord's Cricket Ground, All England Lawn Tennis Club/Wimbledon and the office of the Minister of Sport. **Semester Hours:** 3 to 3

MGMT 6840 - Independent Study

Instructor approval required. Allowed only under special and unusual circumstances. Regularly scheduled courses cannot be taken as independent study. **Semester Hours:** 1 to 8

MGMT 6950 - Master's Thesis

Semester Hours: 1 to 8

Master of Integrated Sciences Courses (MINS)

MINS 5000 - Topics

With prior approval by a candidate's advisor, an MIS candidate may enroll in an upper division course in science, computer science, mathematics, and complete additional work for graduate credit. Prereq: MIS candidate with 12 hours of upper division work completed. **Semester**

Hours: 3 to 4

MINS 5840 - Independent Study

Semester Hours: 1 to 3

MINS 5939 - Internship

Semester Hours: 1 to 3

MINS 5950 - Master's Thesis

Prereq: advisor approval. **Semester Hours:** 1 to 6

MINS 5960 - Master's Project

Prereq: advisor approval. **Semester Hours:** 1 to 4

Marketing Courses (MKTG)

MKTG 1000 - Introduction to Marketing

Provides an introduction and overview of marketing. Discusses market and buyer analysis. Includes product planning, pricing, promotion and distribution of goods and services. For non-business majors only. Does not satisfy the MKTG 3000 business requirement. **Semester Hours:** 3 to 3

MKTG 2939 - Internship

Introductory supervised experiences involving the applications, concepts and skills in an employment situation. Prereq: sophomore standing **Semester Hours:** 1 to 1

MKTG 3000 - Principles of Marketing

Focuses on the basic marketing concepts of Buyer Behavior, Marketing Research, Marketing Planning and Implementation and the marketing process of product, price, distribution and promotion. This is a business core course therefore a grade of a 'C' or better must be earned to satisfy graduation requirements. Prereq: Junior standing. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

MKTG 3100 - Marketing Research

Provides practical experience in research methodologies, planning an investigation, designing a questionnaire, selecting a sample, interpreting results and making a report. Techniques focus on attitude surveys, behavioral experiments, and qualitative research. Prereq: MKTG 3000 and DSCI 2010. **Semester Hours:** 3 to 3

MKTG 3200 - Buyer Behavior

Focuses on improving the student's understanding of consumer and organizational buying behavior as a basis for better formulation and implementation of marketing strategy. Blends concepts from the behavioral sciences with empirical evidence and introduces buyer research techniques. Prereq: MKTG 3000. **Semester Hours:** 3 to 3

MKTG 3300 - Social Media in Business

Social media has become a central component of many business activities including marketing, HR, product management and the supply chain. In this course, we examine the organizational use of social media technologies such as blogs and social networks, as well as the use of social media analytics to drive business strategy. Cross-listed with ISMG 3300. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

MKTG 3939 - Internship

Supervised experiences involving the application of concepts and skills in an employment situation. Prereq: senior standing and 3.5 GPA. **Semester Hours:** 1 to 3

MKTG 4000 - Advertising

Analyzes principles and practices in advertising from a managerial viewpoint. Considers the reasons to advertise, product and market analysis as the planning phase of the advertising

program, media selection, creation and production of advertisements, copy testing, and development of advertising budgets. Prereq: MKTG 3000. **Semester Hours:** 3 to 3

MKTG 4050 - Applied Marketing Management

The course is designed to enhance the student's ability to formulate and implement a marketing plan and to better understand the relationship of marketing to other business functions. Emphasized application of marketing concepts through the use of cases, simulations or projects. Prereq: MKTG 3000 and DSCI 2010. **Semester Hours:** 3 to 3

MKTG 4051 - Honors Applied Marketing Management

Offered as the second course in a sequence following the principles of marketing course (MKTG 3000) it is therefore designed to enhance the student's ability to formulate and implement a marketing plan and to better understand the relationship of marketing to other business functions. It will emphasize application of marketing concepts through the use of cases, simulations or projects. This Honors course is modeled after understanding of the concepts covered. Note: MKTG 4051 is open only to marketing majors who have a cumulative GPA of 3.2 or higher. Students taking MKTG 4051 cannot receive credit for MKTG 3050 or MKTG 4050. Prereq: MKTG 3000, cumulative GPA of 3.2 or higher. **Semester Hours:** 3 to 3

MKTG 4200 - International Marketing

Studies managerial marketing policies and practices of firms marketing their products in foreign countries. Analytical survey of institutions, functions, policies, and practices in international marketing. Relates marketing activities to market structure and environment. Prereq: MKTG 3000. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

MKTG 4220 - Asian Business Development and Marketing

This course investigates methods of Business Development and Marketing in the Asian Business Environment. It seeks to examine and explain methods of determining market potential and techniques tapping this market potential in this dynamic and rapidly growing business environment the course uses a combination of experienced guest speakers, Asian business cases and projects to develop the marketing skills in students to successfully compete in Asia. Prereq: MKTG 3000. **Semester Hours:** 3 to 3

MKTG 4250 - Sports Marketing

This course is designed to understand and evaluate the role and functions of marketing in sports organizations. The course seeks to evaluate the marketing function in sports as well as understand the behavior of fans as consumers, celebrity product endorsements, sponsorship of sporting events for all sport providers, sports intermediaries and channels and advertising and promotion in the sports world. The course is taught using lectures, guest speakers, cases and examinations. Prereq: MKTG 3000. **Semester Hours:** 3 to 3

MKTG 4580 - International Transportation

Analysis of international transportation (primarily sea and air) in world economy. Detailed study of cargo documentation and freight rate patterns. Included are liability patterns, logistics,

economics, and national policies of transportation. Prereq: MKTG 3000. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

MKTG 4700 - Personal Selling and Sales Management

Introduces the student to principles of personal selling and issues in managing the field sales force. Focuses on models of personal selling, recruiting, selection, training, compensation, supervision, and motivation, as well as organizing the field sales force, sales analysis, forecasting and budgeting. Prereq: MKTG 3000. **Semester Hours:** 3 to 3

MKTG 4720 - Internet Marketing

Distinctly influences the way marketers conduct marketing activities. The Internet media promises to establish marketing theories, identifies obsolete situations, explores how marketing functions have irreversibly changed as a result of the internet, and outlines basic marketing strategies for successful online marketing. Prereq: MKTG 3000. **Semester Hours:** 3 to 3

MKTG 4760 - Customer Relationship Management

This marketing-theory driven course examines customer relationship management (CRM) as a key strategic process for organizations. Composed of people, technology and processes, effective CRM optimizes the selection or identification, acquisition, growth and retention of desired customers to maximize profit. Besides presenting an overview of the CRM process, its strategic role in the organization and its place in marketing, students have an opportunity to create simulated CRM database using popular software package that help to illustrate what CRM can do, its advantages and limitations. Prereq: MKTG 3000. Cross-listed with ISMG 4760.

Semester Hours: 3 to 3

MKTG 4800 - Marketing Seminar

Offered to provide consideration of a wide variety of topical issues in marketing, such as, services marketing, pricing, product development or creative marketing strategies. Prereq: MKTG 3000. **Semester Hours:** 3 to 3

MKTG 4840 - Independent Study

Semester Hours: 1 to 8

MKTG 4950 - Special Topics

Courses offered on an irregular basis for the purpose of presenting new subject matter in marketing. Prerequisites vary depending upon the particular topic and instructor requirements.

Semester Hours: 3 to 3

MKTG 5939 - Internship

Supervised experiences involving the applications of concepts and skills in an employment situation. Prereq: 21 semester hours and 3.5 GPA. **Semester Hours:** 1 to 3

MKTG 6010 - Marketing Strategy, Evaluation and Development

Focuses on marketing strategy and marketing planning. Addresses the formulation and implementation of marketing plans within the context of the overall strategies and objectives of

both profit and not-for-profit organizations. There is heavy emphasis on g **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

MKTG 6020 - International Marketing

Explores problems, practices, and strategies involved in marketing goods and services internationally. Emphasized analysis of uncontrollable environmental forces, including cultures, governments, legal systems, and economic conditions, as they affect international marketing planning. Prereq: BUSN 6560 can be taken concurrently with MKTG 6020. Note: students cannot receive credit for both MKTG 6020 and INTB 6026. Cross-listed with INTB 6026.

Semester Hours: 3 to 3

MKTG 6030 - Sales and Sales Force Management

Focuses on issues in personal selling and managing the field sales force. Deals with organization sales analysis, forecasting, budgeting and operating, with particular emphasis on the selling task, recruiting, selection, training, compensation, supervision and motivation. Prereq: BUSN 6560 (may be taken concurrently). **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

MKTG 6040 - Services Marketing

Service industries such as health care, finance, information, entertainment, retailing, government, and professional services comprise 80% of the total employment and GDP of the US. Manufacturing firms increasingly look to value-added services to improve their bottom lines; yet customer satisfaction with services has been consistently lower than with goods. This course teaches students how to design and deliver high quality services, improve customer satisfaction, and thereby increase revenues and profitability. It also addresses how small, medium, and large firms can develop marketing plans and strategies in the new service environment. A variety of teaching methods may be used to demonstrate these concepts, such as cases, projects, field experiences, and/or guest speakers. **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

MKTG 6050 - Marketing Research

The objectives relate to effective marketing information management and include: (1) developing an understanding of the techniques and procedures that can be used to generate timely and relevant marketing information; (2) gaining experience in developing and analyzing information that is decision oriented; and (3) being able to make recommendations and decisions based on relevant and timely information. Computer analysis and projects are employed. Prereq: BUSN 6560 (may be taken concurrently). **Semester Hours:** 3 to 3 **When Offered:** *FALL SPR*

MKTG 6060 - Buyer Behavior

Why do consumers buy? How can marketing activities influence buyer behavior? Answers to these questions are key to marketing success & business fortune. In this course, we explore how to understand the heart & soul of consumers & examine the strategic implications of consumer psychology. Course participants conduct a market segmentation project that identifies & dissects various buyer groups within a chosen market. **Semester Hours:** 3 to 3

MKTG 6070 - Integrated Marketing Communications and Brand Identity

A brand's identity has a substantial influence on an organization's financial wealth. But brand identity is not simply the result of a great product or a creative ad. Utilizing many real examples, historic approaches, and current trends, this course explores how integrated marketing communications help build a brand identity that reverberates with consumers. Participants create an integrated marketing communications campaign. Prereq: BUSN 6560 (may be taken concurrently). **Semester Hours:** 3 to 3

MKTG 6080 - Marketing in Emerging Markets

Explores problems, practices and strategies involved in marketing goods and services in emerging markets. Emphasizes analysis of uncontrollable environmental forces, including cultures, government, legal, systems and economic conditions as they affect marketing planning. Prereq: BUSN 6560. Note: students cannot receive credit for both MKTG 6080 and INTB 6082. Cross-listed with INTB 6082. **Semester Hours:** 3 to 3

MKTG 6090 - Customer Relationship Management

Involves the management of customer relationships to maximize customer service and its associated benefits at minimal cost. Includes services marketing concepts and techniques, IT applications, and software. Designed to acquaint students with practices and issues in state-of-the-art customer relationship management systems in an array of different types of organizations. The course initially focuses on the nature of customer relationship management (CRM) the interaction between strategic management planning, corporate culture and CRM. Other topics examined include successful models of CRM, managing the employee or CRM interface, marketing research, and CRM, and customer trust, loyalty, CRM customer service levels, customer service levels, customer profitability or metrics, selecting and integrating CRM software, CRM integration and timing of CRM roll-out. Prereq: BUSN 6560 (may be taken concurrently). **Semester Hours:** 3 to 3

MKTG 6091 - Strategic Product Marketing

Familiarizes students with key theories and practices regarding products. Successful development of a new product, or extending the life cycle of an existing product. Outlines and necessitates the understanding of product development, key concepts related to successful product management over the course of its life cycle including the way the product function adds synergy to other marketing activities and, in turn, benefits from them. **Semester Hours:** 3 to 3

MKTG 6092 - Internet Marketing

Explores how the marketing function has irreversibly changed as a result of the internet and to lay out basic marketing strategies for successful online marketing. Prereq: BUSN 6560 (may be taken concurrently). **Semester Hours:** 3 to 3

MKTG 6094 - Marketing Issues in the Chinese Environment

This course assesses numerous marketing and marketing related topics in the Chinese environment with the objective of helping the graduate student develop managerial and marketing expertise. In specific, the course pinpoints key developments in the Chinese business

environment, develops expertise in conducting market opportunity analysis, assesses market entry conditions and strategies and applies marketing mix strategies in the context of the Chinese environment. Note: It is recommended for students to take BUSN 6560 or INTB 6000 prior to this course. Cross-listed with INTB 6094. **Semester Hours:** 3 to 3

MKTG 6200 - Marketing Dashboard Metrics

Dashboards help us monitor the functioning of various systems by displaying real-time process or outcome metrics. In the past, such indicators were often not available until the end of a period, which made them more "post-mortems" than management tools. **Semester Hours:** 3 to 3

MKTG 6700 - Marketing Travel Study

This is a 2-week travel course, designed to focus on the marketing of the specific country we visit. In the past the travel course has been to Spain and Costa Rica, but the country of destination may be different every time (usually offered every other year). While in the country, students will visit companies (such as advertising agencies, marketing research firms, local grocery stores, marketing departments of multinational corporations, etc.), have lectures/discussions on marketing in that country and work on a marketing plan for a local company or not-for-profit organization. Prereq: BUSN 6560. **Semester Hours:** 3 to 3

MKTG 6800 - Topics in Marketing

Courses offered irregularly for the purpose of presenting new subject matter in marketing. Consult the current 'Schedule Planner' for semester offerings. Prereq: BUSN 6560. **Semester Hours:** 3 to 3

MKTG 6820 - Sports & Entertainment Marketing

This course focuses on techniques for formulating marketing plans for various types of sports organizations. The course deals with marketing issues particularly germane to sports organizations such as: fans as consumers, fan loyalty, sports pricing, servicescapes, player development and sports sponsorships. This course includes lectures, guest speakers, cases, examinations and student group projects. **Semester Hours:** 3 to 3

MKTG 6830 - Marketing & Global Sustainability

Marketing & Global Sustainability focuses on the role of marketing in sustainable for-profit and not-for-profit companies from a global perspective. The course examines sustainable business practices and trends; green brands, green labels, and greenwash. **Semester Hours:** 3 to 3

MKTG 6840 - Independent Study

Allowed only under special and unusual circumstances. Regularly scheduled courses cannot be taken as independent study. Prereq: Permission of instructor. **Semester Hours:** 1 to 8

Modern Languages Courses (MLNG)

MLNG 1111 - Freshman Seminar

Semester Hours: 1 to 3

MLNG 1995 - Travel Study Abroad

Entry-level language and cultural instruction in country of target language. Focuses on vocabulary and grammar to teach students to express themselves in everyday situations. A basic knowledge of the language and culture will be developed through listening, reading, writing and speaking. The classes will be taught primarily in the target language and will be supplemented by cultural excursions. **Semester Hours:** 1 to 15

MLNG 2939 - Internship

Semester Hours: 1 to 3

MLNG 4690 - Methods of Teaching Modern Languages

Methodology of teaching foreign language in an urban setting. Note: Requirement for language majors in the teacher certification program, School of Education, CU-Denver. Cross-listed with MLNG 5690. **Semester Hours:** 3 to 3

MLNG 4691 - Methods of Teaching Modern Languages II

A continuation of the study of modern language teaching methods. This second course has an emphasis on experiential learning through individual teaching demonstrations, class observations, as well as team teaching with experienced instructors. Prereq: MLNG 4690. Cross-listed with MLNG 5691. **Semester Hours:** 3 to 3

MLNG 5690 - Methods of Teaching Modern Languages

Methodology of teaching foreign language in an urban setting. Requirement for language majors in the teacher certification program, School of Education, CU-Denver. Cross-listed with MLNG 4690. **Semester Hours:** 3 to 3

MLNG 5691 - Methods of Teaching Modern Languages II

A continuation of the study of modern language teaching methods. This second course has an emphasis on experiential learning through individual teaching demonstrations, class observations, as well as team teaching with experienced instructors. Prereq: MLNG 5690. Cross-listed with MLNG 4691. **Semester Hours:** 3 to 3

Recording Arts Courses (MSRA)

MSRA 5000 - Introduction to Graduate Studies

Surveys existing literature and research in science, technology, and pedagogy of recording arts. Extensive use of available resources in library, electronic and print, trade and scientific publications are explored. Use of computer applications for research and publication are developed. **Semester Hours:** 3 to 3

MSRA 5001 - MSRA Research Seminar

In preparation for their thesis/portfolio, students learn research techniques by: applying skills from MSRA 5000, learning research design, performing research, interpreting results, and writing. Students will discover opportunities to add to the body of audio literature and recording techniques. **Semester Hours:** 3 to 3

MSRA 5004 - Topics in Media Forensics

Students learn theory and application through topical subjects designed to enhance theoretical and practical training in the analysis of forensic media. Emphasis will be placed on emerging technologies, methodological developments, and strengthening fundamental skills. These courses are repeatable for credit. **Semester Hours:** 1 to 3

MSRA 5014 - Research Practices in Media Forensics

An introduction to practical research techniques and forensic science periodicals provides students with a foundation for projects and reports in subsequent classes and for the research thesis. Library resources, research design, writing styles, and information technology will be discussed. **Semester Hours:** 3 to 3 **When Offered:** FALL

MSRA 5054 - Experiential Lab

Students will understand laboratory procedures and the application of A/V technology in the field and in analysis through professional conferences and site visits to crime labs and government agencies. Students will respond to experiences regarding presentation, demonstration, and discussion components. **Semester Hours:** 1 to 1

MSRA 5114 - Foundations in Media Forensics

Students learn the foundational processes integral to forensic audio, video, and image analysis demonstrating knowledge through reading responses and documentation of procedures and methodology used in assigned projects. Topics include: media recording technology, analog/digital theory, multimedia compression, and equipment characterization. **Semester Hours:** 3 to 3 **When Offered:** FALL

MSRA 5124 - Forensic Science and Litigation

Critical analysis of legal precedent and court proceedings reveal to students the correlation between science and law in the litigation of forensic evidence. Assigned reading and research papers regarding evidence admissibility and scientific methodology will prepare students for evidence examination. **Semester Hours:** 3 to 3 **When Offered:** FALL

MSRA 5134 - Computer Forensics

Students explore computer forensics through guided projects and group discussion. An overview of computer hardware/software and characterization of storage media and file types will be covered through mock evidence examination documenting the search, seizure, and acquisition of forensic media. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

MSRA 5144 - MATLAB Foundations

An introduction to MATLAB workflow and its use in Media Forensics will be explored. Students will learn how to build program commands in scripts for signal analysis and to display graphical representations of data and statistics. **Semester Hours:** 2 to 2 **When Offered:** *SPRING*

MSRA 5214 - Forensic Audio Analysis

Students learn concepts through the application of techniques related to audio enhancement, digital media authentication, acoustic analysis, and automatic speaker recognition. The acquisition and analysis of digital evidence applying reliable methods prepares students for forensic audio analysis in the laboratory. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

MSRA 5224 - Forensic Video and Image Analysis

Students learn concepts through the application of techniques related to forensic video collection and image enhancement, authentication, photogrammetry, and comparison. The acquisition and analysis of digital evidence applying reliable methods prepares students for working on forensic imagery in the laboratory. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

MSRA 5244 - Mobile Phone Forensics

Students learn concepts regarding the proper handling of mobile phones to ensure evidence integrity and approaches to address the ever-changing field. Students are prepared for the acquisition and analysis of forensic media on personal devices through ex **Semester Hours:** 1 to 1

MSRA 5254 - MATLAB for Forensic Audio Analysis

Advanced application of MATLAB for the forensic analysis of audio will be presented including file access, FFT and waveform plotting, and signal detection. Through the exploration of correlation and using mean quadratic difference students will be prepared for media authentication. **Semester Hours:** 1 to 1 **When Offered:** *FALL*

MSRA 5264 - MATLAB for Forensic Video and Image Analysis

Advanced application of MATLAB for the forensic analysis of images will be presented covering image processing and analysis techniques. Through exploring analyses such as Photo Response Non-Uniformity and the BI-Dimensional DFT, students are prepared for image authenticity examinations. **Semester Hours:** 1 to 1 **When Offered:** *SPRING*

MSRA 5314 - Report Writing and Court Testimony

Students are prepared for expert witness testimony through the analysis of mock evidence, complimentary report preparation, and subsequent mock trial. This capstone experience will

demonstrate a student's technical writing and presentation skills and exercise the creation of demonstrative materials. **Semester Hours:** 3 to 3 **When Offered:** *SUMMER*

MSRA 5500 - Topics in Professional Audio

Selected topical subjects to include live or studio sound recording, sound reinforcement, new technologies or practices in the audio industry. **Semester Hours:** 1 to 1

MSRA 5505 - Audio Post Production I

Reviews all aspects of audio synchronized with picture, including music, sound effects, narration, and dialog replacement. Topics studied with respect to film, video and multi-media. **Semester Hours:** 3 to 3

MSRA 5510 - Topics in Recording Arts

Selected topical subjects to include live or studio sound recording, sound reinforcement, new technologies or practices in the audio industry. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

MSRA 5530 - Live Sound Reinforcement

This course focuses on the basic elements of sound reinforcement: acoustics, equalization, equipment and mixing techniques. The major emphasis is the production of the final sonic product. **Semester Hours:** 3 to 3

MSRA 5550 - Audio Production III

Advanced studies in sound recording and reinforcement, aesthetics and techniques of multi-track analog and digital recording and stereo imaging. Team lab recording projects. **Semester Hours:** 3 to 3

MSRA 5560 - Mastering & Advanced Digital Audio

A study and practice of the art of mastering. Topics covered include: history, monitoring, signal flow, metering, jitter, audio restoration, limiting, creating a CD pre-master, & mastering for new media. Students will get practical experience mastering their own projects. **Semester Hours:** 3 to 3

MSRA 5575 - Graduate Surround Sound

This lecture-lab course deals with surround sound in film, digital TV and DVD's. Topics include monitoring, microphone techniques, recording, mixing, mastering, delivery formats and psychoacoustics. Students work on two lab projects in the semester. **Semester Hours:** 3 to 3

MSRA 5576 - Surround Sound II

Students will work on advanced surround sound projects and study mixing aesthetics, high-definition technology and authoring. Students will have advanced knowledge of these topics and produce professional, competitive material for their demo. Prereq: MSRA 5550, 5575 and 5505, or permission of instructor. **Semester Hours:** 4 to 4

MSRA 5580 - Graduate Audio Seminar I

Faculty and majors of the music engineering program assemble to discuss and demonstrate issues of artistic and technical applications of recording technology. Student projects, faculty, and guest lectures provide topical focus. **Semester Hours:** 3 to 3

MSRA 5581 - Graduate Audio Seminar II

Capstone project based course in which students complete professional quality projects in music production and/or post production. Students refine their engineering skills and develop new skills required for integration in the music industry such as portfolio design and resume development. **Semester Hours:** 3 to 3

MSRA 5590 - Graduate Audio Production

Deals with advanced audio skills for music recording, including technical and artistic considerations. This is a required course for the MSRA degree. **Semester Hours:** 3 to 3

MSRA 5600 - Topics in Music

Various topics relating to the study of music performance, music technology and music business. **Semester Hours:** 1 to 3

MSRA 5605 - Audio Post Production II

Students will learn advanced Pro Tools techniques by designing, conceptualizing, and completing sound for a student film project. This interdisciplinary course prepares students for working relationships between Recording Arts, Film and Video areas and an entry level job in post production. **Semester Hours:** 3 to 3

MSRA 5820 - Digital Music Techniques

Studies the general principles and applications of digital music technology, emphasizing the function and operation of specific computer software. Topics include digital audio workstations, MIDI sequencers, digital signal processing programs, and distr **Semester Hours:** 3 to 3

MSRA 5840 - Independent Study for MSRA

Allows graduate students to pursue in-depth study of an audio-related topic, to be discussed with and approved by the Graduate Advisor. A final report or other tangible results will be determined on a case- by-case basis. **Semester Hours:** 1 to 3

MSRA 6214 - Forensic Audio Analysis

Students learn concepts through the application of techniques related to audio enhancement, digital media authentication, acoustic analysis, and automatic speaker recognition. The acquisition and analysis of digital evidence applying reliable methods p **Semester Hours:** 3 to 3

MSRA 6224 - Forensic Video and Image Analysis

Students learn concepts through the application of techniques related to forensic video collection and image enhancement, authentication, photogrammetry, and comparison. The

acquisition and analysis of digital evidence applying reliable methods prepare **Semester Hours: 3 to 3**

MSRA 6254 - MATLAB for Forensic Audio Analysis

Advanced application of MATLAB for the forensic analysis of audio will be presented including file access, FFT and waveform plotting, and signal detection. Through the exploration of correlation and using mean quadratic difference students will be prep **Semester Hours: 1 to 1**

MSRA 6264 - MATLAB for Forensic Video and Image Analysis

Advanced application of MATLAB for the forensic analysis of images will be presented covering image processing and analysis techniques. Through exploring analyses such as Photo Response Non-Uniformity and the Bi-Dimensional DFT, students are prepared f **Semester Hours: 1 to 1**

MSRA 6510 - Graduate Audio Studies Pedagogy

Surveys available resources for audio education. Interdisciplinary materials in physics, acoustics, engineering, music, broadcast, medicine, psychology, multi-media, theater, and film or video are reviewed. Emphasis on design and development of new methods and materials are pursued. (MSRA graduate students only.) Prereq: MUSC 5000. **Semester Hours: 3 to 3**

MSRA 6550 - Sound Design

Deals with designing sound for live theater, film, video, television, theme parks, games and soundscapes. Focuses on using technology to achieve specific esthetic aspects of audio production. This is accomplished through lectures, listening assignments, research and lab practice. (For graduate students only.) **Semester Hours: 4 to 4**

MSRA 6950 - Thesis in Professional Audio

With the guidance of a thesis advisor, each candidate for the MSRA degree select an approved topic for scholarly review, research and publication. The approved materials are evaluated for written and oral defense. Prereq: MUSC 5000, 5590, 6510, 6580, 6530. **Semester Hours: 4 to 4**

MSRA 6951 - Professional Audio Portfolio Thesis

With the guidance of a portfolio advisor, each candidate for the MSRA degree produce specified documentation and audio materials that reflect the career intentions of the candidate. A completed "Show kit" or professional "Demo" of the candidate's specialty are produced. The approved materials are evaluated for written, audio and oral defense. **Semester Hours: 4 to 4**

MSRA 6954 - Research Thesis in Media Forensics

Students work closely with their thesis advisor in selecting a topic for original research and scientific publication. This capstone project creates an area of specialty for MSRA-MF degree candidates. Approved materials are evaluated through report subm **Semester Hours: 4 to 4**

Math Education Courses (MTED)

MTED 5030 - Theories Of Mathematics Learning

Students will become familiar with foundational theories and conceptual frameworks in mathematics education. **Semester Hours:** 3 to 3

MTED 5040 - Mathematics Teaching - Theory and Practice

This course is designed for educators interested in developing research-based understandings and practices of K-12 mathematics teaching and learning. **Semester Hours:** 3 to 3

MTED 5050 - Critique Of Mathematics Education Research

This course is designed to deepen students' understanding of various studies in the field and increase their competence, confidence and enthusiasm in reading and applying those studies. **Semester Hours:** 3 to 3

MTED 5060 - Developmental Pathways In Students' Mathematical Thinking

The purpose of this course is for participants to develop research-based ways of determining (a) what to look for, (b) how to look for, (c) how to synthesize and report on, and (d) how to incorporate in pedagogy data-grounded inferences about children's mathematical thinking. **Semester Hours:** 3 to 3

MTED 5621 - A World Of (different) Numbers

Teachers' learning will focus on the four main number systems - Integers, Rational, Real, and Complex; on how students may progress from one to another, and on how teaching may promote students' progress. **Semester Hours:** 3 to 3

MTED 5622 - Expanding Concepts Of Algebra

Teachers' learning will focus on the key ideas of equivalence, variable, co-variation, and function; on how students may progress from one to another, and on how teaching may promote students' progress. **Semester Hours:** 3 to 3

MTED 5623 - Geometrical Ways Of Reasoning

Teachers' learning will focus on geometrical reasoning in two and three dimensions, within Euclidian and non-Euclidian axiomatic systems; on how students may progress from one to another, and on how teaching may promote students' progress. **Semester Hours:** 3 to 3

MTED 7030 - Theories Of Mathematics Learning

Students will become familiar with foundational theories and conceptual frameworks in mathematics education. **Semester Hours:** 3 to 3

MTED 7040 - Mathematics Teaching - Theory and Practice

This course is designed for educators interested in developing research-based understandings and practices of K-12 mathematics teaching and learning. **Semester Hours:** 3 to 3

MTED 7050 - Critique Of Mathematics Education Research

This course is designed to deepen students' understanding of various studies in the field and increase their competence, confidence and enthusiasm in reading and applying those studies.

Semester Hours: 3 to 3

MTED 7060 - Developmental Pathways In Students' Mathematical Thinking

The purpose of this course is for participants to develop research-based ways of determining (a) what to look for, (b) how to look for, (c) how to synthesize and report on, and (d) how to incorporate in pedagogy data-grounded inferences about children's mathematical thinking.

Semester Hours: 3 to 3

Music Courses (MUSC)

MUSC 1111 - Freshman Seminar

Semester Hours: 3 to 3

MUSC 2450 - Performing Arts Management and Presentation

Introduces students to nonprofit and for-profit arts organization issues in performance presentation including organization structure, performance production and management, development of leadership and organizational skills as well as a general understanding of the profession. **Semester Hours:** 3 to 3

MUSC 2540 - Audio Production I

Operating principles and performance characteristics of microphones, amplifiers, speaker systems, equalizers, mixers and multi-track recorders; acoustics of music, auditoriums and recording studios. Prereq: MUSC 2700. **Semester Hours:** 3 to 3

MUSC 2560 - Audio Production II

Studies include theoretical and practical music production techniques with topics covering digital audio workstations, signal flow, digital signal processing, MIDI production, synthesis, and sampling. Team lab recording projects involve recording, mixing, and other music production techniques. Prereq: MUSC 2540. **Semester Hours:** 3 to 3

MUSC 2700 - Introduction to Music Business

Introduces music as a business and a product, emphasizing music publishing, recording, broadcasting, marketing, licensing and legal aspects. **Semester Hours:** 3 to 3

MUSC 2815 - Music Industry Topics

Various topics related to music business and recording arts industries. **Semester Hours:** 3 to 3

MUSC 3125 - Sound and Music for Video Games

This course will give students an overview of the function of sound and music for video games including: history, sound engines, types of audio utilized, stereo and surround sound localization, music capabilities of hardware configurations and future trends in sound for video games. Prereq: MUSC 2540 and MUSC 2470 or permission of instructor. **Semester Hours:** 1 to 1

MUSC 3210 - Music and Entertainment Marketing

In this course students learn the essential elements of marketing as applied to the music and entertainment industry. Course topics include: marketing principles, theories and tools utilized in the music and entertainment businesses and specific industry practices and applications. Prereq: MUSC 2700. **Semester Hours:** 3 to 3

MUSC 3220 - Artist Management

Students learn the theory and practice of artist management as it relates to developing a career through entrepreneurship, establishing business structures for the artist, and concepts including: promotion, live performance, recording, contracts, and essential business practices.

Prereq: MUSC 2700 **Semester Hours:** 3 to 3

MUSC 3550 - Critical Listening for Recording Arts

Students will be trained to recognize: boosts and cuts in different bands of frequencies at increasingly small increments, types of distortion, parameters for compression, delay, reverb and stereo imaging. Students will develop a vocabulary for describing sounds and improving auditory memory. Prereq: MUSC 2560 and PHYS 3620. Coreq: MUSC 4550. **Semester**

Hours: 3 to 3

MUSC 3615 - Topics In Music Business

Various topics relating to the study of music business. **Semester Hours:** 3 to 3

MUSC 3690 - Concert Promotion, Tour, and Venue Management

This course gives students a working knowledge of touring, presenting, promoting, marketing and management of live concerts. They will undertake an in-depth analysis from various points of reference: issues for agent, independent promoter, venue manager, tour/production manager and performer. Prereq: MUSC 3210 and MUSC 3220. **Semester Hours:** 3 to 3

MUSC 3700 - Music and Entertainment Business in the Digital Age

In this course students learn the trends and developments changing the industry in the Digital Age. Course focuses on current technology, terminology and business models shaping the industry, preparing students for entry into an evolving music and entert **Semester Hours:** 3 to 3

MUSC 3710 - CAM Records

Provides students with an opportunity to use knowledge and skills from music business courses to create and execute initiatives while partnering with local artists and music-related entities for a hands-on learning experience that benefits the student and **Semester Hours:** 3 to 3

MUSC 3715 - Music Business Modules

Modular courses intended to expose students to specific business and management aspects of various subindustries within the music industry.. Prereq: MUSC 3690. **Semester Hours:** 1 to 1

MUSC 3720 - Law and the Music Industry

Students will learn how to use and analyze music law principles through a review of essential court case studies. Students will be tested on lecture material and provided with an opportunity to complete research papers for a more in-depth examination. Prereq: MUSC 3690. **Semester Hours:** 3 to 3

MUSC 3755 - Music Publishing

Students will learn key issues related to music publishing and song marketing activities, as well as the function and responsibilities of music publishers. Students will gain insight into skills needed to operate a music publishing company. Prereq: MUSC **Semester Hours:** 3 to 3

MUSC 3785 - Current Issues In the Music Business

Class discusses and analyzes cutting-edge business and legal developments in the music industry, focusing particularly on the developments' impact on historical traditions, career paths and creative applications in the field. Prereq: MUSC 3690. **Semester Hours:** 3 to 3

MUSC 3790 - Video Production in the Arts: Music

Introduces the development of the contemporary music video with an emphasis on stylistic and technical analysis. Combines a lecture demonstration format with hands-on videography. Open to music, theatre, fine arts majors, and students who have successfully completed at least one College of Arts and Media course. **Semester Hours:** 4 to 4

MUSC 3939 - Internship

Semester Hours: 1 to 3

MUSC 4100 - Advanced Composition

Composition of extended forms. May be repeated once for credit. Prereq: MUSC 3200. **Semester Hours:** 2 to 2

MUSC 4500 - Topics in Professional Audio

Selected topical subjects to include live or studio sound recording, sound reinforcement, new technologies or practices in the audio industry. Prereq: MUSC 4550. Cross-listed with MSRA 5500. **Semester Hours:** 1 to 1

MUSC 4505 - Audio Post Production I

Reviews all aspects of audio synchronized with picture, including music, sound effects, narration, and dialog replacement. Topics studied with respect to film, video and multi-media. Prereq: MUSC 4560. Coreq: MUSC 4580. Cross-listed with MSRA 5505. **Semester Hours:** 3 to 3

MUSC 4510 - Topics in Recording Arts

Selected topical subjects to include live or studio sound recording, sound reinforcement, new technologies or practices in the audio industry. **Semester Hours:** 3 to 3 **When Offered:** *FASPRSUM*

MUSC 4530 - Live Sound Reinforcement

This course focuses on the basic elements of sound reinforcement: acoustics, equalization, equipment and mixing techniques. The major emphasis is the production of the final sonic product. Prereq: MUSC 4550. **Semester Hours:** 3 to 3

MUSC 4550 - Audio Production III

Advanced studies in sound recording and reinforcement, aesthetics and techniques of multi-track digital recording and stereo imaging. Team lab recording projects. Prereq: MUSC 2560 and PHYS 3620. Coreq: MUSC 3550. Cross-listed with MSRA 5550. **Semester Hours:** 3 to 3

MUSC 4560 - Mastering & Advanced Digital Audio

A study and practice of the art of mastering. Topics covered include: history, monitoring, signal flow, metering, jitter, audio restoration, limiting, creating a CD pre-master, & mastering for new media. Students will get practical experience mastering their own projects. Prereq: MUSC 3550 and MUSC 4550. **Semester Hours:** 3 to 3

MUSC 4575 - Surround Sound

This lecture-lab course deals with surround sound in film, digital TV and DVDs. Topics include monitoring, microphone techniques, recording, mixing, mastering, delivery formats and psychoacoustics. Students work on two lab projects in the semester. Prereq: MUSC 4505. Cross-listed with MSRA 5575. **Semester Hours:** 3 to 3

MUSC 4580 - Audio Production Seminar I

Faculty and majors of the music engineering program assemble to discuss and demonstrate issues of artistic and technical applications of recording technology. Student projects, faculty, and guest lectures provide topical focus. (Music facility fee applies.) Prereq: MUSC 4560. Coreq: MUSC 4505. Cross-listed with MSRA 5580. **Semester Hours:** 3 to 3

MUSC 4581 - Audio Production Seminar II

A capstone project based course in which students complete professional quality projects in music production and/or post production. Students refine their engineering skills and develop new skills required for integration in the music industry such as portfolio design and resume development. Prereq: MUSC 4580. Cross-listed with MSRA 5581. **Semester Hours:** 3 to 3

MUSC 4605 - Audio Post Production II

Students will learn advanced Pro Tools techniques by designing, conceptualizing, and completing sound for a student film project. This interdisciplinary course prepares students for working relationships between Recording Arts, Film and Video areas and an entry level job in post production. Prereq: MUSC 4505 and MUSC 4580. Cross-listed with MSRA 5605. **Semester Hours:** 3 to 3

MUSC 4740 - Music Business Analysis

Students learn to analyze specific managerial situations unique to the music and entertainment industries and will understand aspects of finance, taxation, and management science. Prereq: MUSC 3720. **Semester Hours:** 3 to 3

MUSC 4820 - Digital Music Techniques

Studies the general principles and applications of digital music technology, emphasizing the function and operation of specific computer software. Topics include digital audio workstations, MIDI sequencers, digital signal processing programs, and distribu **Semester Hours:** 3 to 3

MUSC 4890 - Music Business Senior Seminar

Seminar activities focus on students developing, discussing and completing individual capstone projects. This includes an in-depth research paper and in-class presentation to allow students to explore their relevant interests in the music business. Prereq: MUSC 3720. **Semester Hours:** 3 to 3

Public Health Courses (PBHL)

PBHL 1111 - Freshman Seminar

Semester Hours: 3 to 3

PBHL 2000 - Introduction To Public Health

An overview of the discipline and practice of public health. Includes the history of the field, its population perspective, emphasis on prevention, tools and techniques. General principles of the field are illustrated through contemporary public health case studies. **Semester Hours:** 4 to 4

PBHL 2020 - Introduction to Environmental Health

This introductory survey course focuses on the human health implications of environmental exposures. Topics include pathways of exposure, toxicology, risk assessment, regulations, and policy development. Additionally, environmental equity, ethics, global **Semester Hours:** 3 to 3

PBHL 2051 - Introduction To Population Studies

Examines current issues in population growth, fertility, mortality and migration in the United States and globally. Introduces students to the basic tools of demography and encourages them to think critically about the causes and consequences of population change. Cross-listed with HBSC 2051. **Semester Hours:** 3 to 3

PBHL 3001 - Introduction to Epidemiology

Introduces the basic concepts of public health and epidemiology, including assessment of disease in the community, the study of causation and association of disease with lifestyle and environmental risk factors, as well as related special topics. Cross-listed with HBSC 3001. **Semester Hours:** 4 to 4

PBHL 3002 - Ethnicity, Health and Social Justice

Surveys core issues contributing to racial or ethnic minority differences in health status. Historical and contemporary U.S. health and social policy, including the areas of environmental health, sexual and reproductive health, children and immigrants, are examined. Cross-listed with ETST 3002 and HBSC 3002. **Semester Hours:** 3 to 3

PBHL 3010 - Human Sexuality and Public Health

The focus of this course is on human sexuality using a public health lens, examining a number of sexual health issues and their relationship to individual, familial, organizational, and social-level influences. Additionally, we will focus on identifying both primary prevention and intervention approaches to reducing sexual risk factors and increasing healthy behaviors. Cross-listed with HBSC 3010. **Semester Hours:** 3 to 3

PBHL 3021 - Fundamentals of Health Promotion

Provides an overview of the field of health promotion, including an introduction to key theories and methods, as well as exposure to the breadth of programs and diversity of settings through several case studies. Includes attention to health behaviors as contributors to current public health problems and community-based approaches to health promotion in addressing them. Cross-listed with HBSC 3021. **Semester Hours:** 3 to 3

PBHL 3030 - Health Policy

Health policies may have a profound effect on quality of life. Accessibility, cost, quality of health care; safety of food, water, and environment; the right to make decisions about our health; these issues are vitally tied to health policies. This cour **Semester Hours:** 3 to 3

PBHL 3031 - Health, Human Biology and Behavior

Introduces the multi-factorial nature of human health and well-being. Considers the influences of biology (genetics), behavior, environment, culture and social determinants, and health policy on the nature of disease and health problems from an integrated perspective. Cross-listed with HBSC 3031. **Semester Hours:** 3 to 3

PBHL 3041 - Health, Culture and Society

Examines health and illness for individuals, families, and societies from multiple international perspectives, focused on topics such as traditional vs. Western medicine, characteristics of healers and therapeutic relationships, and stigmatized segments of society and their health status. Cross-listed with HBSC 3041. **Semester Hours:** 3 to 3

PBHL 3070 - Perspectives in Global Health

Avian flu, disaster relief, aging populations and primary health care are key issues in a world where diseases cross borders rapidly, but health care resources may not. Examines improvements in global health, growing inequalities and social justice in health. Prereq: PBHL 2000, is recommended. **Semester Hours:** 3 to 3

PBHL 3071 - Global Topics In Sexual and Reproductive Health

Surveys trends and determinants of sexual and reproductive health around the globe and in the United States. Examines the social and behavioral determinants of sexual and reproductive health and the influence of policy. Cross-listed with HBSC 3071. **Semester Hours:** 3 to 3

PBHL 3200 - Human Migration: Nomads, Sojourners, and Settlers

Explores the relationship between human migration, voluntary and forced, and social organization and culture in the modern world. Case studies include pastoralists, foragers, refugees, immigrants, sojourners, and settlers and their impact on health, culture, identity, ethnicity, tradition and nationality. Cross-listed with ANTH 3200 and HBSC 3200. **Semester Hours:** 3 to 3

PBHL 3440 - Medical Sociology

This course covers key issues in population health and emphasizes how sociological perspectives both challenge and augment biomedical perspectives on health and health care. We also discuss the social causes and consequences of race/ethnic, sex, and socioeconomic disparities in health. Cross-listed with SOCY 3440. **Semester Hours:** 3 to 3

PBHL 3939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

PBHL 4020 - Global Health: Comparative Public Health Systems

Within a limited period of time, middle and low income countries have experienced dramatic changes that affect the length and quality of peoples' lives. The health indicators for each country reflect a rich and meaningful context within interacting systems. **Semester Hours:** 3 to 3

PBHL 4031 - Ethnographic Research In Public Health

Qualitative, ethnographic tools for practical applications in public health, including methods of direct observation, informant interviews, focus groups, structured ethnographic methods, rapid assessment and participatory action research. Basic analytic strategies, including review of computer software, coding and data display techniques. Cross-listed with HBSC 4031/5031.

Semester Hours: 3 to 3

PBHL 4040 - Social Determinants of Health

This course explores social inequalities in physical and mental health, the illness experience, the healing professions, health policy, relations between providers and patients, and the structure, access to, and financing of health care organizations, with **Semester Hours:** 3 to 3

PBHL 4060 - Evolutionary Medicine

Applies evolutionary principles to an understanding of human health and illness. The view complements perspectives on health and disease emanating from biological and social sciences, but considers the health or disease process from the perspective of pathogen and host, current and previous environments, and various phases of the life cycle. Prereq: ANTH 1303. Cross-listed with HBSC 4060 and 5060, ANTH 4060 and 5060. **Semester Hours:** 3 to 3

PBHL 4070 - Health Disparities

The purpose of this seminar is to provide students with an understanding of how historical, psychosocial, environmental, and to some degree, biological and genetic factors contribute to inequality in health and health care. Course Prerequisites: PBHL 4040; PBHL 3001; PBHL 2051 **Semester Hours:** 3 to 3

PBHL 4080 - Global Health Practice

A travel-study course that provides students the opportunity to work on global health issues in the context of a supervised internship experience. In addition to a formal internship placement or directed research opportunity, students attend formal lectures and participate in seminars devoted to addressing those health issues most relevant to the country in which the course is being taught. Prereq: HBSC/ANTH 4010/5014, HBSC/ANTH 4020/5020, HLTH 6070 or equivalent. Cross-listed with ANTH 4080/5080, HBSC 4080/5080. **Semester Hours:** 3 to 3

PBHL 4090 - Political Economy of Drugs

Psychotropic drugs, both legal and illicit, are a predominant part of our everyday lives. This course examines their use and meaning within cultures, and the social, political and economic issues that surround their production, use and misuse. Prereq: Introductory course in Cultural Anthropology. Cross-listed with ANTH 4090/5090, and HBSC 4090/5090. **Semester Hours:** 3 to 3

PBHL 4099 - Capstone Experience in Public Health

Offers students the opportunity to integrate, synthesize and apply concepts learned throughout the core curriculum of the public health major to real-world issues. The course involves extensive writing and small group presentations on the epidemiological **Semester Hours:** 3 to 3

PBHL 4110 - Public Health Perspectives On Family Violence

Public health views family violence from a prevention perspective. Our exploration of child abuse, intimate partner violence, and other forms of family violence will complement other disciplinary approaches by focusing heavily on the community and social factors that contribute to abusive relationships. Theories of power and coercion and approaches to researching these issues will be analyzed and discussed through our exploration of the various forms of family violence. Prereq: Advanced undergraduate standing. Cross-listed with HBSC 4110/5110. **Semester Hours:** 3 to 3

PBHL 4200 - The Global HIV/AIDS Epidemic

Provides a foundation for a critical analysis of HIV/AIDS in global context, concerning topics such as disease, the body, ethnicity/race, gender, sexuality, risk, addiction, power, and culture together with a set of ethnographic texts that explore the epidemic's impact. Cross-listed with HBSC 4200/5200. **Semester Hours:** 3 to 3

PBHL 4620 - Health Risk Communication

Acquaints students with contemporary theory, research, and practice in health risk communication. Cross-listed with HBSC 4620/5620, COMM 4620/5620, ENVS 5620. **Semester Hours:** 3 to 3

PBHL 4840 - Independent Study

This course requires active independent learning based upon a written curricular outline and agreement with faculty in Public Health who supervise the student's work throughout the semester. Permission of instructor required. **Semester Hours:** 1 to 4

PBHL 4995 - Travel Study

A flexible format that permits courses to be taught in various areas of the world. Prereq: Upper division undergraduate standing and permission of instructor. **Semester Hours:** 3 to 9

PBHL 4999 - Topics In Public Health

An in-depth study of selected social science perspectives/theories and their applications to population health. Topics will vary from semester to semester, with a particular emphasis on current, salient population health problems. Prereq: Junior or senior standing or permission of instructor. Cross-listed with HBSC 4999/5999. **Semester Hours:** 0 to 4

Philosophy Courses (PHIL)

PHIL 1012 - Introduction to Philosophy: Relationship of the Individual to the World

Introductory course in philosophy that focuses on some of the central questions of philosophy, including theories of reality and the nature of knowledge and its limits. The knowledge of these areas is essential to the student for informed participation in the resolution of contemporary problems in today's society. **Semester Hours:** 3 to 3

PHIL 1020 - Introduction to Ethics and Society: The Person and the Community

Studies some of the traditional problems in ethics that tend to be focused on individual morality within the larger context of social and political philosophy. Some specific contemporary moral and social problems may be addressed, such as AIDS, abortion, famine, and individual rights versus the collective rights of society. **Semester Hours:** 3 to 3

PHIL 1111 - Freshman Seminar

Semester Hours: 1 to 3

PHIL 1700 - Philosophy and the Arts

Considers philosophical questions involved in the analysis and assessment of artistic expressions and of the objects with which the arts, including the literary arts, are concerned. **Semester Hours:** 3 to 3

PHIL 2441 - Logic and Language

Introductory course that considers the significance of logical form and language use in argumentation and persuasion. Topics covered include definition, types of discourse, informal fallacies, traditional syllogisms, rules of logical inference, and problem solving similar to that found on the L.S.A.T. **Semester Hours:** 3 to 3

PHIL 2510 - Philosophy of Nature

Critical comparison of different views of nature presupposed in science, art, religion, and environmental policy. Concepts of "natural" are examined in relation to such issues as animal rights, wilderness preservation, synthetic landscape, technology, pollution, and population control. **Semester Hours:** 3 to 3

PHIL 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 1 to 3

PHIL 3000 - Ethics in Community Affairs

Includes an overview of ethical concepts and approaches, together with consideration of applications to contemporary cases taken from current events in for-profit, non-profit, and governmental arenas. **Semester Hours:** 1 to 1

PHIL 3002 - Ancient Greek Philosophy

History of ancient Greek thought, including traditional myth, pre-Socratic fragments, Plato's dialogues, and Aristotle's systematic philosophy. **Semester Hours:** 3 to 3

PHIL 3005 - Roman and Early Medieval Philosophy

Surveys philosophy in the Roman era, focusing on the Hellenistic schools (Epicureanism, Stoicism and Skepticism), Neoplatonic thought, the advent of Christianity, and the earliest Christian philosophers. **Semester Hours:** 3 to 3

PHIL 3010 - Medieval Philosophy

History of philosophy from Augustine through Scotus and Ockham, the 5th through the 14th centuries. **Semester Hours:** 3 to 3

PHIL 3022 - Modern Philosophy

History of philosophy from Descartes through Kant. **Semester Hours:** 3 to 3

PHIL 3032 - Twentieth Century Analytic Philosophy

Surveys representative philosophers, methods, and problems in the 20th century analytic tradition. **Semester Hours:** 3 to 3

PHIL 3100 - Current Perspectives on the Evolution of Consciousness and Culture

Studies of evolution traditionally regard morphology (anatomy)/behavior and mind/consciousness as separate fields that belong either in biology/paleontology or in psychology/philosophy. The "middle ground" behavior, anthropology, social systems, is also treated separately in most cases. Recent approaches tend toward a more holistic view using unifying principles and "laws of nature" that show similar processes (dissipative effects, information theory, development theory) operating across all fields. Examines the relationships and common threads between the physical anatomical evolution of organisms and their behavior perception and consciousness. Prereq: Introductory course in evolution (biology/paleontology), psychology, philosophy, anthropology or permission of instructor. Cross-listed with GEOL 3100 and RLST 4280. **Semester Hours:** 3 to 3

PHIL 3150 - History of Ethics

Surveys the ethical thought of major figures in the history of philosophy, beginning with Plato and ending with the 19th century. Examples: Aristotle, Hume, Kant and Mill. (Class readings of primary philosophical texts.) **Semester Hours:** 3 to 3

PHIL 3200 - Social and Political Philosophy

Examines basic issues in social and political philosophy, including justice, freedom, individuality, power and community. **Semester Hours:** 3 to 3

PHIL 3250 - Business Ethics

Surveys some of the major moral problems which arise in business, such as the nature and scope of the moral responsibilities of corporations, affirmative action, and truth in advertising. Begins

with a study of moral reasoning, ethical theory, and the challenges of applying ethical theory. **Semester Hours:** 3 to 3

PHIL 3280 - War and Morality

Attempts to identify and analyze some of the major moral issues of war. When is a war just, when is it not? What are morally acceptable rules of engagement? What, if anything, justifies violating them? How does one evaluate terrorism and war against terrorism? What are moral alternatives to the violence of war? **Semester Hours:** 3 to 3

PHIL 3300 - Special Topics in Philosophy

Semester Hours: 1 to 3

PHIL 3350 - Metaphysics

Studies major theories of reality, including topics such as the nature of substance, space and time, and universals and particulars. **Semester Hours:** 3 to 3

PHIL 3360 - Epistemology

Study of major theories of knowledge, including such problems as perception and the distinction between belief and knowledge. **Semester Hours:** 3 to 3

PHIL 3420 - Kosmos: Theories of the Universe

A course in philosophical cosmology using material from the sciences, history and philosophy. The goal is to illuminate our present theories concerning the nature of the universe and the place of life within it. Cross-listed with RLST 4260. **Semester Hours:** 3 to 3

PHIL 3440 - Introduction to Symbolic Logic

Covers truth functional and quantificational logic through polyadic first order predicate calculus and theory of identity. Attention is given to such problems in metatheory as proofs of the completeness and consistency of systems of logic. Cross-listed with MATH 3440. **Semester Hours:** 3 to 3

PHIL 3500 - Ideology and Culture: Racism and Sexism

Surveys the nature and role of racism and sexism. Topics may include ideology theory, naturalism, the equal protection clause, recent scientific discussion, sociolegal history, and social constructionism. **Semester Hours:** 3 to 3

PHIL 3550 - Philosophy of Death and Dying

Historical overview of the metaphysical question of whether there is life after bodily death, beginning with classical arguments through the current debate over such phenomena as near death experiences and deathbed visions. Also focuses on ethical controversies such as suicide, euthanasia, and capital punishment, and the efficacy of philosophical consolations for grief. Prereq: Three hours of philosophy; preferably PHIL 1012. **Semester Hours:** 3 to 3

PHIL 3656 - Contemporary Religious Ethics: Jewish and Christian Traditions

Historical and thematic introduction to ethics in Judaism, Roman Catholicism and Protestantism. A study of selected ethical issues: bio-medical, social justice, sexuality, economic

justice, business and personal ethics. Prereq: English composition; intro to philosophy; world religions; world history; junior status. **Semester Hours:** 3 to 3

PHIL 3666 - Asian Philosophies and Religions

We in the Western world encounter a vastly different world, a radically different "universe of meaning," when we examine the traditions of the East. Even what we tacitly assume to be "real" is claimed by the Hindus and Buddhists of India to be a grand illusion. The world of China is, again, very different from India. An examination of Tibetan and Japanese religious forms will conclude our study of Asian thought. Cross-listed with RLST 3400. **Semester Hours:** 3 to 3

PHIL 3840 - Independent Study

Semester Hours: 1 to 3

PHIL 3939 - Internship

Designed experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

PHIL 3981 - Chinese Philosophy and Culture

China is a fascinating world with its own characteristic orientation to philosophical questions. Chinese thinkers produced the "Flowering of a Hundred Schools of Thought" in the Axial Age, the same period of time in which philosophy was coming to birth in ancient Greece. Covers some of the Chinese schools, including Confucianism, Taoism, Mohism, Legalis, Chinese "logic," and the later schools of schools of Neo-Confucianism, Neo-Taoism and Chinese Buddhism. Cross-listed with RLST 3660. **Semester Hours:** 3 to 3

PHIL 4000 - 19th Century Philosophy

Covers the systematic work of such German idealists as Hegel, Fichte, and Shelling, as well as responses to those systems by such authors as Marx, Kierkegaard, and Nietzsche. Prereq: PHIL 3002 or 3022. Cross-listed with PHIL 5000, HUMN 5000 and SSCI 5000. **Semester Hours:** 3 to 3

PHIL 4040 - Skeptic and Believer

Considers radical skepticism in the form of Sextus Empiricus' Outlines of Pyrrhonism. Following Peter Suber's "Essay on Classical Skepticism," the course also looks at historical responses to Pyrrhonean skepticism, especially in theories of belief. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. Cross-listed with PHIL 5040. **Semester Hours:** 3 to 3

PHIL 4101 - Pragmatism: Classical American Philosophy

The most significant philosophical tradition born in the United States is pragmatism. Examines several of the most important classical works of this tradition, the influence of thinkers who have helped to shape pragmatism, and the contemporary relevance of this tradition. Figures who may be included are: Emerson, Pierce, Royce, James, Dewey, Mead and Rorty. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. Cross-listed with PHIL 5101, HUMN 5101, SSCI 5101. **Semester Hours:** 3 to 3

PHIL 4150 - Twentieth Century Ethics

Surveys representative philosophers, methods, and/or problems in 20th century ethics. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. **Semester Hours:** 3 to 3

PHIL 4200 - Philosophical Problems and Contemporary Culture

Issues and controversies in contemporary culture, their relation to modern theories of society, and their manifestations in the arts, science and technology, education, religion and ethics. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. **Semester Hours:** 3 to 3

PHIL 4220 - Aesthetics and the Philosophy of Art

Introduction to major theories of aesthetics and contemporary discussions of problems in aesthetics and the philosophy of art, including topics such as: the nature of art, interpretation and evaluation in art. Cross-listed with PHIL 5220 and HUMN 5220. **Semester Hours:** 3 to 3

PHIL 4230 - Postmodernism and the Social Sciences

Traces the history of a set of ideas collectively known as postmodern. Disrupting traditional frameworks of knowledge, these concepts have had an enormous impact on the social sciences, the humanities, and the arts. Course readings expose students to the cross-disciplinary impact of postmodernism on theory, content, and method. Prereq: Upper division standing; PHIL 3002 or 3022, minimum grade of "C" in each previous philosophy course, or permission of instructor. **Semester Hours:** 3 to 3

PHIL 4242 - Bioethics

Examines some of the major moral issues confronting the nation's health care system. The class will search for solutions to such problems as financing health care for those unable to do so on their own, determining the extent of a patient's right to both refuse and demand certain types of medical treatment, and allocating scarce medical resources such as lifesaving vital organs. The springboard for examining these issues will be the doctor or patient relationship framed by the moral principles of respect for persons and beneficence. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. Cross-listed with PHIL 5242, SSCI 5242, HUMN 5242. **Semester Hours:** 3 to 3

PHIL 4250 - Environmental Ethics

While human industry/technology creates enormous material prosperity, it can result in devastating environmental damage. This course analyzes the moral values, consequences and duties implied in relationships between human beings, animals and ecological systems, while seeking out new and ethical approaches. Cross-listed with PHIL 5250, HUMN 5250 and SSCI 5250. **Semester Hours:** 3 to 3

PHIL 4260 - Philosophy of Law

Surveys theoretical positions on the nature of law, with particular emphasis on American law. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. Cross-listed with PHIL 5260. **Semester Hours:** 3 to 3

PHIL 4270 - Philosophy of History

Examines critical and speculative theories of history, including the problems of methodology, explanation, values, and the relationship between history and social philosophy. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. **Semester Hours:** 3 to 3

PHIL 4300 - Philosophy of Mind

Consideration of the problems in the philosophy of mind, such as the mind-body problem, the problem of our knowledge of other minds, the compatibility of free will and determinism, and discussion of such concepts as action, intention, motive, desire, enjoyment, memory, imagination, dreaming and self-knowledge. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. Cross-listed with PHIL 5300. **Semester Hours:** 3 to 3

PHIL 4360 - American Legal Process

Introduces students to basic issues in American jurisprudence as well as to the elements and dynamics of the modern American legal system. Cross-listed with PHIL 5360. **Semester Hours:** 3 to 3

PHIL 4460 - Theories of Human Nature

Consideration of such problems as the changeability and definability of human nature, and the possibility of a science of human nature. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. **Semester Hours:** 3 to 3

PHIL 4470 - Concepts of the Soul

Asks the questions: What is the nature of the human being? What makes us "human?" Do humans have a "soul?" What is its nature? Is it different from the "spirit?" What is its ultimate fate? Examines the various theories put forward by philosophers of both Eastern and Western traditions. Cross-listed with PHIL 5470 and RLST 4440, 5440. **Semester Hours:** 3 to 3

PHIL 4480 - Perspectives on Good and Evil

Examines the "problem of evil." As formulated in the philosophical tradition: if the deity is understood as perfect, then why is there evil? How can a perfect entity create imperfection? Why would an absolutely benevolent God cause or allow the innocent to suffer? Presents the classical formulation of the problem, the traditional solutions offered, and the classical critiques of each answer. Considers the perspectives of the various religious orientations, each of which deals differently with the question of suffering. Cross-listed with RLST 4480. **Semester Hours:** 3 to 3

PHIL 4600 - Philosophy of Religion

Nature of religion and methods of studying it. Cross-listed with HUMN 5600, PHIL 5600, RLST 4060, 5060, and SSCI 5600. **Semester Hours:** 3 to 3

PHIL 4650 - Differing Concepts of God

God, gods, and goddesses have been imagined in many different modes, forms, aspects, and guises throughout human history. This course investigates Paleolithic models of God, the Great Goddess of the Neolithic era, the gods of mythological traditions, Biblical God, the abstract God of the philosophers, the God of the pantheists, the deists, and the God of the mystics. Cross-listed with PHIL 5655, RLST 4400 and 5400. **Semester Hours:** 3 to 3

PHIL 4700 - Seminar in a Major Philosopher

The major philosophical texts of one philosopher is studied in this course. Philosophers to be studied are major figures in the history of philosophy such as Plato, Aristotle, Kant and Hume. Note: May be taken for credit more than once. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. **Semester Hours:** 3 to 3

PHIL 4710 - Western Religious Thought

Focuses on philosophers and theologians who have contributed to the evolution of the three great religious traditions of the West: Judaism, Christianity and Islam. Targets thinkers from three periods: the ancient or formative era, the medieval era, and the contemporary era. Note: Specific philosophers chosen may vary in different semesters. Cross-listed with RLST 4070. **Semester Hours:** 3 to 3

PHIL 4720 - Eastern Religious Thought

Parallels the course in Western religious thought. The great religious traditions of the East, including Hinduism, Buddhism, Confucianism, and Taoism, are examined as they are presented in the writings of key philosophical representatives of each tradition. Cross-listed with RLST 4080. **Semester Hours:** 3 to 3

PHIL 4730 - Philosophy and Literature

Considers the philosophical dimensions of literature. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. Cross-listed with PHIL 5730, ENGL 4735 and 5735. **Semester Hours:** 3 to 3

PHIL 4735 - Rationalism

Addresses the fundamental questions of truth and reality through natural reason. Topics vary and may include metaphysics and the rise of modern science; women and the enlightenment; historical problems and linguistic analysis. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. Cross-listed with PHIL 5735. **Semester Hours:** 3 to 3

PHIL 4740 - Empiricism

Considers the nature and importance of experience. Focuses on British Empiricism, but additional themes which vary may include: American pragmatism, logical positivism, scientific empiricism, phenomenology of experience. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. Cross-listed with PHIL 5740. **Semester Hours:** 3 to 3

PHIL 4750 - Introduction to Phenomenology

Examines the contribution of phenomenology to selected topics in the theory of meaning, philosophy of mind, ontology, and epistemology, through a study of such philosophers as Husserl, Heidegger, Sartre and Merleau-Ponty. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. Cross-listed with PHIL 5750. **Semester Hours:** 3 to 3

PHIL 4760 - Kant

A close study of Immanuel Kant's revolutionary thought, focusing on Kant's ontology, epistemology, and ethical theory, as they are articulated in his Critique of Pure Reason and Critique of Practical Reason. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. Cross-listed with PHIL 5830. **Semester Hours:** 3 to 3

PHIL 4770 - Hegel

A systematic study of the thought of G.W.F. Hegel through his most important and influential works: The Phenomenology of Spirit; The Encyclopedia of Philosophical Sciences; The Science of Logic; Lectures on the Philosophy of History; and his lectures on the history of philosophy, art and religion. Focus of the course varies. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. Cross-listed with PHIL 5770. **Semester Hours:** 3 to 3

PHIL 4780 - Heidegger

Studies the thought of Martin Heidegger, one of the most important philosophers of the 20th century. Includes texts from both Heidegger's early and later periods, and focuses on his analyses of human subjectivity and being. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. Cross-listed with PHIL 5780. **Semester Hours:** 3 to 3

PHIL 4790 - Nietzsche

A close study of Nietzsche's philosophical writings, with attention to his significance for philosophy in the 20th century and beyond. Cross-listed with PHIL 5790. **Semester Hours:** 3 to 3

PHIL 4795 - Marx and Marxism

A close study of the most influential works of Karl Marx and subsequent theorists who provide either an influential interpretation of the works of Marx or contribute to an innovative application or elaboration of the basic tenets of Marxism.. Cross-listed with PHIL 5795. **Semester Hours:** 3 to 3

PHIL 4800 - Plato

A careful study of Plato's writings, emphasizing the dialogue form, and discussion of Plato's significance for the history of ethics, political theory, psychology, metaphysics and epistemology. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. Cross-listed with PHIL 5800. **Semester Hours:** 3 to 3

PHIL 4810 - Aristotle

Examines Aristotle's systematic philosophy and discusses its contributions to logic, epistemology, physics, psychology, metaphysics, ethics and political theory. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. Cross-listed with PHIL 5810. **Semester Hours:** 3 to 3

PHIL 4812 - Special Topics in Philosophy

Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. **Semester Hours:** 3 to 3

PHIL 4820 - Hume

Considers the work of eighteenth century philosopher David Hume. Emphasis on unity of Hume's thought. Prereq: PHIL 3002 or 3022, a minimum grade of "C" in each previous philosophy course, or permission of instructor. Cross-listed with PHIL 5820. **Semester Hours:** 3 to 3

PHIL 4833 - Existentialism

Examines one of the most influential movements in recent European thought, beginning with existentialism's 19th century roots, and continuing on to the existentialist philosophers of the 20th century. Figures covered may include Dostoyevsky, Kierkegaard, Nietzsche, Heidegger, Sartre and de Beauvoir. Prereq: PHIL 3000 or 3022, a minimum grade of "C" in each previous philosophy course or permission of instructor. Cross-listed with PHIL 5833, HUMN 5833 and SSCI 5833. **Semester Hours:** 3 to 3

PHIL 4840 - Independent Study: PHIL

Semester Hours: 1 to 3

PHIL 4900 - John Dewey

John Dewey was one of the most important of the American philosophers and public intellectuals of the twentieth century. Topics may include Dewey's philosophical naturalism, pragmatist epistemology, process metaphysics and philosophies of experience, aesthetics, religion, technology and democracy. Cross-listed with PHIL 5900. **Semester Hours:** 3 to 3

PHIL 4920 - Philosophy of Media and Technology

A philosophical examination of interrelationships between contemporary media, technology, and their impacts upon character of contemporary life and values. Topics may include ethics, epistemology, democracy, advertising, media literacy and criticism. Cross-listed with PHIL 5920, HUMN 5920, SSCI 5920. **Semester Hours:** 3 to 3

PHIL 4933 - Philosophy of Eros

Why is philosophy an erotic activity and what are the implications of this insight? We will explore these issues, first, by reading Plato's erotic dialogues: Lysis, Symposium and Phaedrus. Then we will focus on Freud's influential (and controversial) appropriation of Plato's thought in the writings that span his career, from *The Interpretation of Dreams* (1900) to *Civilization and its Discontents* (1930) and beyond. Finally, we will survey post-Freudian theories of eros, such

as Michel Foucault's History of Sexuality, as well as the more recent contributions of thinkers such as Jonathan Lear, Thomas Nagel, Martha Nussbaum and Slavoj Zizek. Cross-listed with WGST 4933/5933, PHIL 5933, SSCI 5933, and HUMN 5933. **Semester Hours:** 3 to 3

PHIL 4950 - Honors Thesis

Semester Hours: 3 to 6

PHIL 4980 - Special Topics in Philosophy

Semester Hours: 1 to 3

PHIL 5000 - 19th Century Philosophy

Covers the systematic work of such German idealists as Hegel, Fichte, and Shelling, as well as responses to those systems by such authors as Marx, Kierkegaard, and Nietzsche. Prereq: PHIL 3002 or 3022. Cross-listed with PHIL 4000, HUMN 5000 and SSCI 5000. **Semester Hours:** 3 to 3

PHIL 5013 - Philosophical Problems in the Social Sciences and the Humanities

Presents an overview of key theoretical issues currently emerging across academic disciplines. Examines questions about reality, knowledge, and ethics that affect social research and writing in the humanities. Readings explore how contemporary philosophical and cultural discourses have altered theory and method. Assignments include influential theoretical pieces by key historical and contemporary thinkers, examples of application in social research, and interpretations of thought and affect in cultural contexts. Cross-listed with HUMN/SSCI 5013. **Semester Hours:** 3 to 3

PHIL 5020 - Elements of Social Thought

Introduces students to the disciplines that comprise the social sciences (classical anthropology, sociology, sociology of religion, philosophy of history, political theory, classical psychology, etc.). Provides necessary tools for interdisciplinary students to understand the social infrastructure of contemporary society. Cross-listed with SSCI 5020 and HUMN 5020. **Semester Hours:** 3 to 3

PHIL 5040 - Skeptic and Believer

Considers radical skepticism in the form of Sextus Empiricus' Outlines of Pyrrhonism. Following Peter Suber's "Essay on Classical Skepticism," the course also looks at historical responses to Pyrrhonean skepticism, especially in theories of belief. Cross-listed with PHIL 4040. **Semester Hours:** 3 to 3

PHIL 5100 - Topics in the History of Philosophy

Semester Hours: 3 to 3

PHIL 5101 - Pragmatism: Classical American Philosophy

The most significant philosophical tradition born in the United States is pragmatism. Examines several of the most important classical works of this tradition, the influence of thinkers who have helped pragmatism, and the contemporary relevance of this tradition. Figures who may be

included in this course are: Emerson, Pierce, Royce, James, Dewey, Mead and Rorty. Prereq: An introductory course in philosophy. Cross-listed with PHIL 4101, SSCI 5101, HUMN 5101.

Semester Hours: 3 to 3

PHIL 5220 - Aesthetics and the Philosophy of Art

Introduction to major theories of aesthetics and contemporary discussions of problems in aesthetics and the philosophy of art, including topics such as: the nature of art, interpretation and evaluation in art. Cross-listed with PHIL 4220 and HUMN 5220. **Semester Hours:** 3 to 3

PHIL 5242 - Bioethics

Examines some of the major moral issues confronting the nation's health care system. The class will search for solutions to such problems as financing health care for those unable to do so on their own, determining the extent of a patient's right to both refuse and demand certain types of medical treatment, and allocating scarce medical resources such as lifesaving vital organs. The springboard for examining these issues will be the doctor or patient relationship framed by the moral principles of respect for persons and beneficence. Cross-listed with PHIL 4242, HUMN 5242, SSCI 5242. **Semester Hours:** 3 to 3

PHIL 5250 - Environmental Ethics

While human industry/technology creates enormous material prosperity, it can result in devastating environmental damage. This course analyzes the moral values, consequences and duties implied in relationships between human beings, animals and ecological systems, while seeking out new and ethical approaches. Cross-listed with PHIL 4250, HUMN 5250 and SSCI 5250. **Semester Hours:** 3 to 3

PHIL 5260 - Philosophy of Law

Surveys theoretical positions on the nature of law, with particular emphasis on American law. Cross-listed with PHIL 4260. **Semester Hours:** 3 to 3

PHIL 5300 - Philosophy of Mind

Consideration of the problems in the philosophy of mind, such as the mind-body problem, the problem of our knowledge of other minds, the compatibility of free will and determinism, and discussion of such concepts as action, intention, motive, desire, enjoyment, memory, imagination, dreaming and self-knowledge. Cross-listed with PHIL 4300. **Semester Hours:** 3 to 3

PHIL 5360 - American Legal Process

Introduces students to basic issues in American jurisprudence as well as to the elements and dynamics of the modern American legal system. Cross-listed with PHIL 4360. **Semester Hours:** 3 to 3

PHIL 5470 - Concepts of the Soul

Asks the questions: What is the nature of the human being? What makes us "human?" Do humans have a "soul?" What is its nature? Is it different from the "spirit?" What is its ultimate

fate? Examines the various theories put forward by philosophers of both Eastern and Western traditions. Cross-listed with PHIL 4470 and RLST 4440, 5440. **Semester Hours:** 3 to 3

PHIL 5550 - Paris 1910: Art, Philosophy and Psychology

Traces the influences of philosophy, psychology, and art in the English, French, and German-speaking worlds in the early twentieth century. This intellectual history is extended to broader cultural and political contexts. Key period is between 1910 and 1968, when modernity's key aspirations and tensions became explicit. Cross-listed with HUMN 5550 and SSCI 5550.

Semester Hours: 3 to 3

PHIL 5600 - Philosophy of Religion

Nature of religion and methods of studying it. Cross-listed with HUMN 5600, PHIL 4600, RLST 4060, 5060, and SSCI 5600. **Semester Hours:** 3 to 3

PHIL 5650 - Reflections on Modernity

Explores modernity as a historical epoch and a theoretical space, looking at the commentaries and reflections of influential 20th century thinkers including Adorno, Arendt, Levinas, Merleau-Ponty, Habermas and Foucault. Examines how the theoretical inclinations of modernity were influenced by politics, art, literature and culture. Cross-listed with HUMN 5650 and SSCI 5650.

Semester Hours: 3 to 3

PHIL 5655 - Differing Concepts of God

God, gods, and goddesses have been imagined in many different modes, forms, aspects, and guises throughout human history. This course investigates Paleolithic models of God, the Great Goddess of the Neolithic era, the gods of mythological traditions, Biblical God, the abstract God of the philosophers, the God of the pantheists, the deists, and the God of the mystics. Cross-listed with PHIL 4650, RLST 4400 and 5400. **Semester Hours:** 3 to 3

PHIL 5720 - Topics in Recent Philosophy

Semester Hours: 3 to 3

PHIL 5730 - Philosophy and Literature

Considers the philosophical dimensions of literature. Cross-listed with PHIL 4730, ENGL 4735 and 5735. **Semester Hours:** 3 to 3

PHIL 5735 - Rationalism

Addresses the fundamental questions of truth and reality through natural reason. Topics vary and may include metaphysics and the rise of modern science; women and the enlightenment; historical problems and linguistic analysis. Prereq: Six hours in Western philosophy. Cross-listed with PHIL 4735. **Semester Hours:** 3 to 3

PHIL 5740 - Empiricism

Considers the nature and importance of experience. Focuses on British Empiricism, but additional themes which vary may include: American pragmatism, logical positivism, scientific

empiricism, phenomenology of experience. Prereq: Six credit hours in Western philosophy. Cross-listed with PHIL 4740. **Semester Hours:** 3 to 3

PHIL 5750 - Introduction to Phenomenology

Examines the contribution of phenomenology to selected topics in the theory of meaning, philosophy of mind, ontology, and epistemology, through a study of such philosophers as Husserl, Heidegger, Sartre and Merleau-Ponty. Cross-listed with PHIL 4750. **Semester Hours:** 3 to 3

PHIL 5755 - Philosophical Psychology

Explores debates about psyche and body, mind and world, self and others, and consciousness and nature. Examines the philosophical questions related to those debates that arise within theories of perception, affect and cognition offered by influential psychological models. Cross-listed with HUMN 5750, SSCI 5750. **Semester Hours:** 3 to 3

PHIL 5770 - Hegel

A systematic study of the thought of G.W.F. Hegel through his most important and influential works: The Phenomenology of Spirit; The Encyclopedia of Philosophical Sciences; The Science of Logic; Lectures on the Philosophy of History; and his lectures on the history of philosophy, art and religion. Focus of the course varies. Cross-listed with PHIL 4770. **Semester Hours:** 3 to 3

PHIL 5780 - Heidegger

Studies the thought of Martin Heidegger, one of the most important philosophers of the 20th century. Includes texts from both Heidegger's early and later periods, and focuses on his analyses of human subjectivity and being. Prereq: Six credit hours in Western philosophy. Cross-listed with PHIL 4780. **Semester Hours:** 3 to 3

PHIL 5790 - Nietzsche

A close study of Nietzsche's philosophical writings, with attention to his significance for philosophy in the 20th century and beyond. Cross-listed with PHIL 4790. **Semester Hours:** 3 to 3

PHIL 5795 - Marx and Marxism

A close study of the most influential works of Karl Marx and subsequent theorists who provide either an influential interpretation of the works of Marx or contribute to an innovative application or elaboration of the basic tenets of Marxism.. Cross-listed with PHIL 4795. **Semester Hours:** 3 to 3

PHIL 5800 - Plato

A careful study of Plato's writings, emphasizing the dialogue form, and discussion of Plato's significance for the history of ethics, political theory, psychology, metaphysics and epistemology. Cross-listed with PHIL 4800. **Semester Hours:** 3 to 3

PHIL 5810 - Aristotle

Examines Aristotle's systematic philosophy and discusses its contributions to logic, epistemology, physics, psychology, metaphysics, ethics and political theory. Cross-listed with PHIL 4810. **Semester Hours:** 3 to 3

PHIL 5812 - Special Topics in Philosophy

Semester Hours: 3 to 3

PHIL 5820 - Hume

Considers the work of eighteenth century philosopher David Hume. Emphasis on unity of Hume's thought. Cross-listed with PHIL 4820. **Semester Hours:** 3 to 3

PHIL 5830 - Kant

A close study of Immanuel Kant's revolutionary thought, focusing on Kant's ontology, epistemology, and ethical theory, as they are articulated in his Critique of Pure Reason and Critique of Practical Reason. Cross-listed with PHIL 4760. **Semester Hours:** 3 to 3

PHIL 5833 - Existentialism

Examines one of the most influential movements in recent European thought, beginning with existentialism's 19th century roots, and continuing on to the existentialist philosophers of the 20th century. Figures covered may include Dostoyevsky, Kierkegaard, Nietzsche, Heidegger, Sartre and de Beauvoir. Cross-listed with PHIL 4833, HUMN 5833 and SSCI 5833. **Semester Hours:** 3 to 3

PHIL 5840 - Independent Study: PHIL

Semester Hours: 1 to 3

PHIL 5900 - John Dewey

John Dewey was one of the most important of the American philosophers and public intellectuals of the twentieth century. Topics may include Dewey's philosophical naturalism, pragmatist epistemology, process metaphysics and philosophies of experience, aesthetics, religion, technology and democracy. Cross-listed with PHIL 4900. **Semester Hours:** 3 to 3

PHIL 5920 - Philosophy of Media and Technology

A philosophical examination of interrelationships between contemporary media, technology, and their impacts upon character of contemporary life and values. Topics may include ethics, epistemology, democracy, advertising, media literacy and criticism. Cross-listed with PHIL 4920, HUMN 5920, SSCI 5920. **Semester Hours:** 3 to 3

PHIL 5933 - Philosophy of Eros

Why is philosophy an erotic activity and what are the implications of this insight? We will explore these issues, first, by reading Plato's erotic dialogues: Lysis, Symposium and Phaedrus. Then we will focus on Freud's influential (and controversial) appropriation of Plato's thought in the writings that span his career, from The Interpretation of Dreams (1900) to Civilization and its Discontents (1930) and beyond. Finally, we will survey post-Freudian theories of eros, such

as Michel Foucault's *History of Sexuality*, as well as the more recent contributions of thinkers such as Jonathan Lear, Thomas Nagel, Martha Nussbaum and Slavoj Žižek. Cross-listed with PHIL 4933, WGST 4933/5933, SSCI 5933, and HUMN 5933. **Semester Hours:** 3 to 3

Physics Courses (PHYS)

PHYS 1000 - Introduction to Physics

Introductory survey course for nonscientists that emphasizes the main concepts of physics. Although this course is mainly descriptive, some high school algebra will be used. The accompanying lab work is designed to illustrate the material discussed in the lectures.

Semester Hours: 4 to 4

PHYS 1052 - General Astronomy I

The history of astronomy is studied from early civilizations to the present. The basic motions of the earth, moon, sun, and planets are discussed both qualitatively and quantitatively, using elementary principles of physics. Properties of our solar system are discussed in detail, including results from unmanned space probes. Note: An additional 30 hours of laboratory work (at times to be arranged), plus appropriate report preparation time, are required to complete laboratory component of the course. Prereq: High school algebra or equivalent. **Semester Hours:** 4 to 4

PHYS 1100 - Foundations of Physics

One-semester non-lab survey course especially designed for non-science majors. Acquaints students with some of the major principles and methods of physics. Includes applications of physics to everyday life and some discussion of the historical development of physics. Prereq: A good working knowledge of elementary algebra. **Semester Hours:** 4 to 4

PHYS 1111 - Freshman Seminar

Semester Hours: 1 to 3

PHYS 1115 - Physics Content

Covers content areas of undergraduate physics. Topics include matter and energy; heat and thermodynamics; atomic and nuclear structure; mechanics; electricity and magnetism; and wave characteristics. **Semester Hours:** 1 to 3

PHYS 1332 - Explorations in Physics

Applications of physics are explored in depth for students considering physics as a major or minor. Topics vary each semester, providing conceptual and mathematical insights and hands-on activities on how physics is used in the real world or at research frontiers. Prereq: Algebra and Trigonometry. **Semester Hours:** 3 to 3

PHYS 1840 - Independent Study: PHYS

Students must check with a faculty member before taking this course. **Semester Hours:** 1 to 3

PHYS 2010 - College Physics I

(This course is an approved Colorado Statewide Guaranteed Transfer Course). Mechanics, heat and sound. Prereq: College algebra and trigonometry. **Semester Hours:** 4 to 4

PHYS 2020 - College Physics II

Electricity, magnetism, light and modern physics. Prereq: PHYS 2010. **Semester Hours:** 4 to 4

PHYS 2030 - College Physics Lab I

Semester Hours: 1 to 1

PHYS 2040 - College Physics Lab II

Prereq: PHYS 2030. **Semester Hours:** 1 to 1

PHYS 2311 - General Physics I: Calculus-Based

Covers vector displacement, uniform and accelerated motion, force, momentum, energy, rotating systems, oscillations, and an introduction to thermodynamics. Emphasis is on basic principles. Prereq: MATH 1401. **Semester Hours:** 4 to 4

PHYS 2321 - General Physics Lab I

Semester Hours: 1 to 1

PHYS 2331 - General Physics II: Calculus-Based

Covers electrostatics, magnetic fields, electromagnetic waves (including light), and optics. Prereq: PHYS 2311 and MATH 2411. **Semester Hours:** 4 to 4

PHYS 2341 - General Physics Lab II

Prereq: PHYS 2321. **Semester Hours:** 1 to 1

PHYS 2711 - Vibrations and Waves

Introduces vibrations and waves associated with physical phenomena. Analytic and numerical methods in physical contexts. Topics include harmonic oscillators, resonance, coupled oscillators, nonlinear oscillators, waves in elastic media, sound waves, pulses and dispersion. Prereq: PHYS 2331 and MATH 2411. **Semester Hours:** 3 to 3

PHYS 2811 - Modern Physics I

Presents a study of the events and discoveries that occurred during the latter part of the 19th and the first part of the 20th centuries which led to the discovery of quantum mechanics; namely, special relativity, particle nature of radiation, wave properties of particles, models of the atom, and the introduction of quantum mechanics. Prereq: PHYS 2331 and MATH 2411. **Semester Hours:** 4 to 4

PHYS 2821 - Modern Physics II

Quantum physics used for an understanding of energy levels and configuration of hydrogen atoms, strength of molecular bonds, atomic and molecular spectroscopy, solid state physics, band theory, nuclear and subatomic physics. Also includes quantum statistics, general relativity and cosmology. Prereq: PHYS 2811. **Semester Hours:** 3 to 3

PHYS 2840 - Independent Study: PHYS

Students must check with a faculty member before taking this course. **Semester Hours:** 1 to 3

PHYS 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 1 to 3

PHYS 3040 - Modern Cosmology

Designed for non-majors, covering the large-scale structure of the universe. Topics covered are gravitational concepts, neutron stars, pulsars, black holes, big bang universe and cosmological tests. Prereq: PHYS 2010 or equivalent. **Semester Hours:** 3 to 3

PHYS 3050 - General Astronomy II

Evolution of our sun and other stars is studied, as well as the methods used to gain the information. Discussion includes objects such as neutron stars, novae and supernovae, and black holes. Large-scale structures, including clusters and galaxies, are studied. Prereq: PHYS 1052, 2010 or 2311. **Semester Hours:** 3 to 3

PHYS 3082 - Energy and the Environment

For students of various backgrounds who wish to increase their understanding of the environmental and technical issues of supplying the energy demands of our society. Alternative energy sources and conservation are explored as solutions to promote sustainable society. Prereq: One college-level science course and MATH 1110 or equivalent. Cross-listed with ENVS 3082. **Semester Hours:** 3 to 3

PHYS 3120 - Methods of Mathematical Physics

Typically covers calculus of variations, special functions, partial differential equations, integral transforms, linear vector spaces, and tensor analysis. Prereq: MATH 2421 and 3195 (or equivalent) or permission of instructor. **Semester Hours:** 3 to 3

PHYS 3151 - Biophysics Outlook I

Designed as a companion to General Biology I (but can take stand-alone), this course explores how biophysics concepts and experimental methods add to the knowledge of life's processes at the molecular and cellular level. Prereq: PHYS 2311 and PHYS 2331. **Semester Hours:** 1 to 1

PHYS 3161 - Biophysics Outlook II

Designed as a companion to General Biology I (but can take stand-alone), this course explores how biophysics concepts and experimental methods contribute to the understanding of the structure and function of plants, animals & ecological systems. Prereq: PHYS 2311 and PHYS 2331. **Semester Hours:** 1 to 1

PHYS 3211 - Analytical Mechanics

Topics include the Lagrange and Hamiltonian formulations, the two-body problem, rigid body motion, and small oscillations. Prereq: PHYS 2711, MATH 2421 and 3195 or equivalent. Coreq: PHYS 3120. **Semester Hours:** 4 to 4

PHYS 3251 - Biophysics of the Body

Fundamental ideas of mechanics are used to model the form and function of the human body, including statistics, locomotion, energy, and fluid flow. Topics from analytical mechanics are included to ensure student knowledge of Lagrangian and Hamiltonian formalisms. **Semester Hours:** 4 to 4

PHYS 3411 - Thermal Physics

Covers the basic concepts of the three related disciplines of thermodynamics, statistical mechanics, and kinetic theory. Prereq: PHYS 2331, 2811 and MATH 2421; Coreq: MATH 3195 or equivalent. **Semester Hours:** 3 to 3

PHYS 3451 - Biophysics of the Cell

This course will cover the fundamentals of thermodynamics and statistical mechanics and apply these physical principles to the understanding of biological systems. Topics covered include, heat entropy, equilibrium, brownian motion, probability and statis **Semester Hours:** 4 to 4

PHYS 3620 - Sound and Music

Considers the basic nature of sound waves, the ear and hearing, and musical instruments. Although this course is mainly descriptive, some high school algebra will be used. Prereq: MATH 1070 or equivalent. **Semester Hours:** 3 to 3

PHYS 3711 - Junior Laboratory I

Advanced laboratory in classical and modern physics. Prereq: PHYS 2811. **Semester Hours:** 2 to 2

PHYS 3721 - Junior Laboratory II

Advanced laboratory in classical and modern physics. Prereq: PHYS 3711. **Semester Hours:** 2 to 2

PHYS 3811 - Quantum Mechanics

A course in which both wave and matrix mechanics are developed and applied to selected problems in atomic physics. Prereq: PHYS 2811 and 3211. **Semester Hours:** 3 to 3

PHYS 3820 - Subatomic Physics

Introductory treatment of the various concepts and models used to describe nuclear and high energy particle phenomena. Prereq: PHYS 2811. **Semester Hours:** 3 to 3

PHYS 3840 - Independent Study: PHYS

Note: Students must check with a faculty member before taking this course. **Semester Hours:** 1 to 3

PHYS 3939 - Internship

Designed experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

PHYS 4331 - Principles of Electricity and Magnetism

Elements of mathematical theory of electricity and magnetism, including electrostatics, magnetostatics, polarized media, direct and alternating current theory, and introduction to electromagnetic fields and waves. Prereq: PHYS 2331 and 3120. **Semester Hours:** 4 to 4

PHYS 4351 - Bioelectromagnetism

The fundamental theory of electric and magnetic fields is developed and applied to problems of biology and medicine. Examples in medical diagnostics and treatment are built upon rigorous application of Maxwell's equations and constitutive models of electromagnetic properties of biomaterials. Prereq: PHYS 2331 and 3120. **Semester Hours:** 4 to 4

PHYS 4400 - Topics in Scientific Instrumentation and Laboratory Methods

Short courses on practical knowledge needed to design scientific instruments, develop technical products, and use special laboratory procedures to research. Topics include materials, mechanisms, electronics, and optics. Specific topic information is available through the physics department web site. Prereq: Two semesters of 2000-level introductory physics or instructor's permission. Cross-listed with PHYS 5400-5499. **Semester Hours:** 1 to 1

PHYS 4401 - Special Topics

Semester Hours: 1 to 3

PHYS 4402 - Special Topics

Semester Hours: 1 to 3

PHYS 4403 - Special Topics

Semester Hours: 1 to 3

PHYS 4510 - Optics

Presents a contemporary treatment of selected topics in optics, such as matrix methods in geometrical optics, the Fourier analysis approach to physical optics, and interaction of light with matter. Prereq: PHYS 2331, 2811 and 3120. **Semester Hours:** 3 to 3

PHYS 4550 - Astrophysics

Covers stellar astrophysics, solar physics, star formations, stellar evolution, processes in the interstellar medium, galactic dynamics and evolution, formation of galaxies and cosmology. Prereq: MATH 3195; PHYS 2821 and 3050 recommended. **Semester Hours:** 3 to 3

PHYS 4610 - Computational Physics

Designed to provide an understanding of the role of the computer in modern theoretical physics by studying the simulation of physical phenomena in various fields of physics. Prereq: PHYS 3120. **Semester Hours:** 2 to 2

PHYS 4620 - Computational Physics II

Assigns the student to an individual, advanced-level project modeling a physical phenomenon on the computer. Prereq: PHYS 4610. **Semester Hours:** 2 to 2

PHYS 4650 - Solid State Physics

Covers the basic thermal and electrical properties of solids which are explained in terms of the Brillouin zone structures of phonons and electrons. Prereq: PHYS 3411 and 3811. **Semester Hours:** 3 to 3

PHYS 4711 - Senior Laboratory I

Individual project laboratory with emphasis on modern methods of physical experimentation. Prereq: PHYS 3721. **Semester Hours:** 2 to 2

PHYS 4721 - Senior Laboratory II

Individual project laboratory with emphasis on modern methods of physical experimentation. Prereq: PHYS 4711. **Semester Hours:** 2 to 2

PHYS 4788 - Bioinformatics

Provides a broad exposure to the basic concepts and methodologies of bioinformatics and their application to analyzing genomic and proteomic data. Topics may include dynamic programming algorithms, graph theoretic techniques, hidden Markov models, phylogenetic trees, RNA/protein structure predictions and microarray analysis. Prereq: CSCI 1410, MATH 3191 or 3195. Cross-listed with CSCI 4788, MATH 4788. **Semester Hours:** 3 to 3

PHYS 4810 - Atomic and Molecular Structure

A course in which quantum mechanical methods are applied to problems in atomic and molecular physics, such as the one-electron atom, atomic and molecular spectra, and particle scattering. Prereq: PHYS 3811. **Semester Hours:** 3 to 3

PHYS 4840 - Independent Study: PHYS

Note: Students must check with a faculty member before taking this course. **Semester Hours:** 1 to 3

PHYS 4850 - Physics for Design and Innovation I

A service-learning project using fundamental physical principles to design a prototype scientific instrument, technical device, or technical process for a real-world client. Includes instruction on project management, intellectual property, and market analysis. Cross-listed with PHYS 5850. **Semester Hours:** 3 to 3

PHYS 4852 - Physics for Design and Innovation II

A capstone project using fundamental physical principles to prototype a scientific instrument, technical device or technical process. The focus is on the student's own product idea. Includes online guided readings on the wider context of product development. Students should consult with instructor on necessary physics and mathematics preparation for the project. Prereq: PHYS 4850. Cross-listed with PHYS 5852. **Semester Hours:** 3 to 3

PHYS 4920 - Advanced Undergraduate Seminar

Studies a focused topic such as: size and age of the universe, critical phenomena, non-linear optics, energy, fiber-optic communications, among others. Students research these topics and

give a seminar outlining their findings. Prereq: PHYS 2811 or permission of instructor.

Semester Hours: 1 to 1

PHYS 4931 - Internship in Applied Physics

Lab experience at major federal and industrial laboratories; an alternative means by which senior physics students complete their senior lab requirement. Note: To be taken in lieu of PHYS 4711 and/or 4721. Prereq: PHYS 3721. **Semester Hours:** 2 to 4

PHYS 4939 - Internship

Semester Hours: 1 to 3

PHYS 4980 - Advanced Physics Topics

Covers a particular topic, as announced in the 'Schedule Planner.' Note: May be taken more than once for credit in different topics. Prereq: PHYS 2811. **Semester Hours:** 1 to 3

PHYS 5101 - RM-MSMSP: Forces and Motion

Systematic study of the concepts of motion and the forces that cause motion to change, using daily hands-on activities that include identifying patterns by collecting, graphing or analyzing data and applying concepts to everyday phenomena. Concepts are linked to other scientific, mathematical, societal, and pedagogical domains. This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: Permission of project director.

Semester Hours: 4 to 4

PHYS 5102 - RM-MSMSP: Light, Color, and Geometrical Optics

Systematic study of numerous phenomena in light and geometrical optics including: illumination, shadows, and pinholes; reflection and image formation with lenses; color. Concepts are linked to other scientific, mathematical, societal, and pedagogical domains. This course is not applicable toward any degree in the College of Liberal Arts and Sciences. Prereq: Permission of project director. **Semester Hours:** 4 to 4

PHYS 5103 - Forms and Transfer of Energy

Presents approaches to teaching basic concepts of energy with an emphasis on electricity and magnetism. Addresses the Colorado Department of Education's Grade 8 science assessment framework, specifically 2.8, 2.9 and 4.2. Course is not applicable toward any degree in physics. Prereq: Permission of project director. **Semester Hours:** 4 to 4

PHYS 5104 - RM-MSMSP Aviation Fundamentals

Designed for teachers in the RM-MSMSP program Explores flight instruments, aerodynamics, safety of flight, charts/airspace, radios/communication, weather, navigation, aircraft performance, NASA microgravity and medical issues, cross country flight, route and aircraft planning, Crew resource management, aeronautical decision making and more. **Semester Hours:** 4 to 4

PHYS 5105 - RM-MSMSP Research Experience for Teachers - Physics Cohort

A five - week research exploration in which RM-MSMSP teachers will raise their level of relevant scientific understanding by engaging in a "hands-on" workshop, transforming what they have learned into new curricular materials that will improve the scientific abilities of their students and hopefully stimulate them to consider a STEM career. Note: credit may not apply toward any CLAS degree. **Semester Hours:** 1 to 6

PHYS 5400 - Topics in Scientific Instrumentation and Laboratory Methods

Short courses on practical knowledge needed to design scientific instruments, develop technical products, and use special laboratory procedures in research. Topics include materials, mechanisms, electronics, and optics. Specific topic information is available through the physics department web site. Cross-listed with PHYS 4400-4499. **Semester Hours:** 1 to 1

PHYS 5401 - Special Topics

Semester Hours: 1 to 3

PHYS 5402 - Special Topics

Semester Hours: 1 to 3

PHYS 5403 - Special Topics

Semester Hours: 1 to 3

PHYS 5840 - Independent Study: PHYS

Note: Students must check with a faculty member before taking this course. **Semester Hours:** 1 to 3

PHYS 5850 - Physics for Design and Innovation I

A service-learning project using fundamental physical principles to design a prototype scientific instrument, technical device, or technical process for a real-world client. Includes instruction on project management, intellectual property, and market analysis. Cross-listed with PHYS 4850.

Semester Hours: 3 to 3

PHYS 5852 - Physics for Design and Innovation II

A capstone project using fundamental physical principles to prototype a scientific instrument, technical device or technical process. The focus is on the student's own product idea. Includes online guided readings on the wider context of product development. Students should consult with instructor on necessary physics and mathematics preparation for the project. Prereq: PHYS 4850 or 5850. Cross-listed with PHYS 5852. **Semester Hours:** 3 to 3

PHYS 5939 - Internship

Note: Students must check with a faculty member before taking this course. **Semester Hours:** 1 to 6

PHYS 5950 - Master's Thesis

Note: Students must check with a faculty member before taking this course. **Semester Hours:** 1 to 8

PHYS 5960 - Master's Project

Note: Students must check with a faculty member before taking this course. **Semester Hours:** 1 to 8

PHYS 5980 - Advanced Physics Topics

Covers a particular topic as announced in the 'Schedule Planner.' Note: May be taken more than once for credit in different topics. Prereq: PHYS 2811 or permission of instructor. **Semester Hours:** 1 to 3

PHYS 6840 - Independent Study: PHYS

Note: Students must check with a faculty member before taking this course. **Semester Hours:** 1 to 3

Performance Music Courses (PMUS)

PMUS 1001 - Music Appreciation

Explores the style of music in the major compositional periods, including contemporary pop styles. This course will not satisfy any degree requirements for music majors. For non-music majors who want to learn how to listen to music with greater understanding and pleasure.

Semester Hours: 3 to 3

PMUS 1020 - Beginning Musicianship

Provides basic musical and theoretical skills to students who do not have the proficiency to enroll in Theory I and Ear Training I. Major concepts include an introduction to music fundamentals, basic ear training, introduction to sight singing and an applied understanding of the keyboard. This course will not satisfy any degree requirements for Music majors.

Semester Hours: 3 to 3

PMUS 1021 - Piano Class For Non-Majors

Elementary group instruction in piano skills for non-majors. Course focuses upon development of basic reading and performance skills for the non-Music Major. Course is repeatable for a maximum of 4 credits.

Semester Hours: 2 to 2

PMUS 1023 - Piano Class I

This course focuses on beginning note reading in both treble and bass clefs, learning one octave major key scales, basic harmonization, and beginning improvisation. Students perform in both individual and group settings. Note: This course is restricted to Music-Majors only.

Coreq: PMUS 1100 and 1110. **Semester Hours:** 1 to 1

PMUS 1024 - Piano Class II

This course focuses on intermediate sight reading, technique, chord vocabulary, major and minor scales, and improvisation. Students perform in both individual and group settings. Note: This course is restricted to Music-Majors only.

Prereq: PMUS 1023. Coreq: PMUS 1200 and 1210. **Semester Hours:** 1 to 1

PMUS 1025 - Piano Class III

Students entering this course are expected to have general fluency in major and minor scales. The course focuses on expanding chord vocabulary, sight reading, transposition, and performing more advanced repertoire. Students perform in both individual and group settings. Note: This course is restricted to Music-Majors only.

Prereq: PMUS 1024. **Semester Hours:** 1 to 1

PMUS 1026 - Piano Class IV

Students entering this course are expected to have fluency in sight reading, major and minor scales. The course focuses on harmonizing with complex chords, playing by ear, improvisation, and playing repertoire in broader range of key signatures. Students perform in both individual and group settings. Note: This course is restricted to Music-Majors only.

Course meets in Roland Piano Lab. Prereq: PMUS 1025. **Semester Hours:** 1 to 1

PMUS 1040 - Class Guitar

Designed to provide each student with a basic knowledge of the fretboard. The course material focuses on beginning note reading, basic chord forms and elementary improvisation. Students have the opportunity to perform in both individual and group settings. **Semester Hours:** 1 to 1

PMUS 1041 - Class Guitar II

This group guitar class is designed to go beyond PMUS 1040 and provide students with an advanced knowledge of the fretboard. The course material focuses on advance position note reading, complex chord forms and scale vocabulary. Students have the opportunity to perform in both individual and group settings. **Semester Hours:** 1 to 1

PMUS 1045 - Class Guitar I for Non-Majors

This class will address basic techniques and concepts of playing the guitar, for non-majors. Students will gain a basic proficiency with regard to picking and fingerstyle technique, and learn essential contemporary harmony through the performance of etud **Semester Hours:** 1 to 1

PMUS 1046 - Class Guitar II for Non-Majors

This class will address basic techniques and concepts of playing the guitar, for non-majors. Students will gain a basic proficiency with regard to picking and fingerstyle technique, and learn essential contemporary harmony through the performance of etud **Semester Hours:** 1 to 1

PMUS 1047 - The Beatles for Fingerstyle Guitar

This course will examine the music of The Beatles, through harmonic analysis, technical etudes and performance practice. Students will develop a basic proficiency with regard to specific fingerstyle techniques. **Semester Hours:** 1 to 1

PMUS 1050 - Voice Class I

Fundamentals of voice production: posture, breath management and support, tone, resonance, diction, phrasing and interpretation. Development of technique, confidence, and control through group and solo singing. Development of repertoire that includes contemporary and commercial vocal styles. **Semester Hours:** 1 to 1

PMUS 1051 - Voice Class I for Non-Majors

Voice technique and repertoire for non-music majors taught in a group setting. Students will learn basics of healthy singing technique and how to sing in multiple genres in both group and solo formats. For non-majors with little or no previous singing **Semester Hours:** 2 to 2

PMUS 1060 - Voice Class II

Fundamentals of voice production: posture, breath management and support, tone, resonance, diction, phrasing and interpretation. Extension of PMUS 1050, with opportunity to continue to develop individual skills in singing. Development of technique, confidence, and control through group and solo singing. Development of repertoire that includes contemporary and commercial vocal styles. **Semester Hours:** 1 to 1

PMUS 1061 - Voice Class II for Non-Majors

Intermediate Voice technique for non-majors taught in a group setting. Students will learn elements of technique, style and repertoire geared toward non-majors. Some singing experience or successful completion of Voice I for Non-Music Majors required. **Semester Hours:** 2 to 2

PMUS 1100 - Music Theory I

Study of the evolution of harmonic and melodic procedures, as derived from the common practice period of classical music, and their relationship to contemporary music concepts. Coreq: PMUS 1110 and PMUS 1023. **Semester Hours:** 3 to 3

PMUS 1101 - Music Theory & Ear Training Lab

Provides supplemental instruction and tutoring for students enrolled in Theory I and Ear Training Sight Singing I. Course activities include training in the following subject areas: scale formation and identification, chord spelling and identification, interval spelling and identification, basic harmonic analysis and rhythmic dictation. **Semester Hours:** 1 to 1 **When Offered:** FALL

PMUS 1110 - Ear Training and Sight Singing I

An aural skills laboratory course that reinforces the concepts taught in Music Theory I through interval, melodic, harmonic, and rhythmic dictation as well as the preparation and sight singing of music. Coreq: PMUS 1100 and PMUS 1023. **Semester Hours:** 1 to 1

PMUS 1200 - Music Theory II

The study of harmonic and melodic elements as they relate to modern, jazz, and commercial music. Topics include contemporary chord spelling, chord substitution, transposition, voice leading, harmonic analysis and modes. Prereq: PMUS 1110 and PMUS 1100. Coreq: PMUS 1210 and PMUS 1023. **Semester Hours:** 3 to 3

PMUS 1210 - Ear Training and Sight Singing II

An intermediate aural skills laboratory course that reinforces the concepts taught in Music Theory II through interval, melodic, harmonic, and rhythmic dictation as well as the preparation and sight singing of music.. Prereq: PMUS 1100 and PMUS 1110. Coreq: PMUS 1200 and PMUS 1023. **Semester Hours:** 1 to 1

PMUS 1310 - Sight Reading and Improvisation

Explores the techniques and concepts of instrumental jazz/commercial improvisation and beginning sight reading. Major concepts include understanding and interpreting the construction of jazz harmonic nomenclature and the mastery of the melodic elements of improvisation. Prereq: PMUS 1200, 4.0 credits from PMUS 1801 to PMUS 1823 (MIS Applied Lesson). **Semester Hours:** 2 to 2

PMUS 1400 - Group Applied Lessons

Consists of group music lessons of up to four students per group. The course meets for one hour per week. 45 minutes will be in group format and 15 minutes will be rotating private instruction.

Note: PMUS 1400 is only available to majors in the Music Industry Studies degree program.
Coreq: PMUS 1500 and at least 7 non-applied lesson credits. **Semester Hours:** 2 to 2

PMUS 1410 - Percussion I Ensemble

Beginning Ensemble. Focus on basic percussion techniques and introductory ensemble playing utilizing Afro-Cuban literature. Comprised of percussion instruments of both definite and indefinite pitch. Introduces rhythmic sight-reading. Develops collaborative learning, aural skills and interactive multicultural awareness. Prereq: Audition or meeting with ensemble faculty.

Semester Hours: 1 to 1

PMUS 1420 - UCD A Cappella Voices Ensemble

Beginning Ensemble. A cappella choir. This course will focus on choral singing to further the student's musical and vocal skills. Emphasis will be on successful preparation for the advanced a cappella groups. Prereq: Audition or meeting with ensemble faculty. **Semester Hours:** 1 to 1

PMUS 1430 - Solo Vocal Jazz Ensemble

Beginning Ensemble. Focus on basic performance and stylistic skills in the jazz language. Students will learn basic and jazz vocal techniques and skills and their application in study and performance. Students will perform in solo and duo settings. Prereq: Audition or meeting with ensemble faculty. **Semester Hours:** 1 to 1

PMUS 1440 - Acoustic Guitar Ensemble

Beginning Ensemble. This course explores the techniques and repertoire of acoustic guitar. Musical styles include: jazz, Latin, bluegrass, Renaissance, Baroque, tango and blues. Prereq: Audition or meeting with ensemble faculty. **Semester Hours:** 1 to 1

PMUS 1450 - Music Theatre Ensemble

Beginning Ensemble. This course consists of group rehearsals of contemporary and original music theater works with a focus on techniques, technologies, and strategies for arranging. Score reading, transposition, ranges, orchestration and composition will be covered. Prereq: Audition or meeting with ensemble faculty. **Semester Hours:** 1 to 1

PMUS 1460 - Beginning Instrumental Ensemble

Focus on basic performance and stylistic skills in the jazz, Latin, and blues genres. Students will learn basic instrumental techniques and their application in group performances. **Semester Hours:** 1 to 1

PMUS 1470 - Performance Practice Ensemble

This beginning-level ensemble explores individual and group performance settings for first year audition-based MEIS students. Course skills include: performance protocol, presentation, self assessment and peer assessment. **Semester Hours:** 1 to 1

PMUS 1500 - General Recital

This pass/fail course is a co-requisite for all students enrolled in applied music instruction. Students will evaluate and critique musical performances and presentations as well as develop

an informed understanding of live musical performance as it pertains to diversity of genre and excellence in musical achievement. **Semester Hours:** 1 to 1

PMUS 1502 - Applied Electric Bass

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1512 - Applied String Bass

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1522 - Applied Bassoon

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1532 - Applied Clarinet

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1542 - Applied Bass Clarinet

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1552 - Applied Flute

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1562 - Applied French Horn

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1572 - Applied Guitar

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1582 - Applied Banjo

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1610 - Topics in Performance Music

Various topics related to music performance. **Semester Hours:** 1 to 1

PMUS 1612 - Applied Drum Kit

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1620 - Topics: Performance Music II

Various topics related to music performance. **Semester Hours:** 2 to 2

PMUS 1622 - Applied Oboe

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1630 - Topics: Performance Music III

Various topics related to music performance. **Semester Hours:** 3 to 3

PMUS 1632 - Applied World Percussion

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1642 - Applied Piano

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1652 - Applied Jazz Piano

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1662 - Applied Saxophone

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1672 - Applied Synthesizer

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1682 - Applied Trombone

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1692 - Applied Trumpet

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1702 - Applied Violin

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1712 - Applied Viola

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1722 - Applied Cello

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major.

Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1732 - Applied Voice

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1742 - Applied Tuba

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1762 - Applied Euphonium

Private music lessons for audition-based music majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. **Semester Hours:** 1 to 1

PMUS 1801 - MIS Applied Electric Bass

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program **Semester Hours:** 1 to 1

PMUS 1802 - MIS Applied String Bass

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program. **Semester Hours:** 1 to 1

PMUS 1803 - MIS Applied Guitar

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program

Semester Hours: 1 to 1

PMUS 1804 - MIS Applied Percussion

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1805 - MIS Applied Drum Kit

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1806 - MIS Applied Piano

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1807 - MIS Applied Jazz Piano

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1808 - MIS Applied Voice

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS

1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1809 - MIS Applied Synthesizer

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1810 - MIS Applied Trumpet

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1811 - MIS Applied Trombone

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program

Semester Hours: 1 to 1

PMUS 1812 - MIS Applied Tuba

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1813 - MIS Applied French Horn

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1814 - MIS Applied Euphonium

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1815 - MIS Applied Banjo

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1816 - MIS Applied Bassoon

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1817 - MIS Applied Clarinet

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1818 - MIS Applied Flute

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1819 - MIS Applied Saxophone

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS

1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1820 - MIS Applied Oboe

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1821 - MIS Applied Cello

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1822 - MIS Applied Viola

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 1823 - MIS Applied Violin

Private music lessons for Music Industry Studies majors. Lessons emphasize developing fundamental technique, learning and performing standard repertoire, understanding the foundations of musicality, sight reading and developing rhythmic accuracy. Note: Only available to non audition based music majors in the Music Industry Studies emphasis area. Coreq: PMUS 1500 and at least 7 non-applied lesson credits. Prereq: Acceptance to the MEIS program.

Semester Hours: 1 to 1

PMUS 2092 - Commercial Piano Styles

Explores the major commercial piano styles of the twentieth century with a focus on the performance of these styles. Note: Students must have already passed PMUS 1026 (Piano Class IV) or be accepted as a pianist in an audition-based degree track in the MEIS department.

Semester Hours: 2 to 2 **When Offered:** FALL

PMUS 2094 - Rhythm Section Techniques

This course examines jazz and contemporary techniques for the rhythm section. Students will learn styles, skills and expectations for various rhythm instruments including guitar, bass,

piano, and drum kit in order to improve musical communication, accompaniment skills and creativity. **Semester Hours:** 1 to 1

PMUS 2095 - Commercial Guitar Styles and Theory - Harmony

A comprehensive guitar course that focuses on harmonic theory specific to the guitar fingerboard. Topics include: chord voicing and inversions, jazz and commercial accompaniment styles including walking bass, bossa nova, funk and finger picking. **Semester Hours:** 2 to 2

PMUS 2096 - Commercial Guitar Styles and Theory - Melody

A comprehensive guitar course that focuses on harmonic theory specific to the guitar fingerboard. Topics include: tetrachords, scales, modes, arpeggios, finger technique development and improvisation. **Semester Hours:** 2 to 2

PMUS 2097 - Commercial Singing I

Fundamentals of voice production: posture, breath management and support, tone, resonance, diction, phrasing and interpretation. Development of contemporary solo vocal repertoire (pop, rock, jazz, rhythm and blues) and traditional styles. Training in all aspects of vocal performance needed for live performance and recording sessions (microphone technique, stage presence, appropriate vocal styles and delivery). Development of solid understanding of vocal technique and its application to all vocal styles. **Semester Hours:** 2 to 2

PMUS 2098 - Commercial Singing II

Fundamentals of voice production: posture, breath management and support, tone, resonance, diction, phrasing and interpretation. Extension of PMUS 3010, with opportunity to continue to develop individual skills in commercial solo singing. Development of contemporary solo vocal repertoire (pop, rock, jazz, rhythm and blues) and traditional styles. Training in all aspects of vocal performance needed for live performance and recording sessions (microphone technique, stage presence, appropriate vocal styles and delivery). Development of solid understanding of vocal technique and its application to all vocal styles. Prereq: PMUS 3010. **Semester Hours:** 2 to 2

PMUS 2100 - Music Theory III

Exposes students to the theoretical aspects of Western European classical music from the Baroque period to the Classical period. Emphasis is placed on the melodic aspects of classical music including the creation of melody and the combining of melodies into polyphonic structures. Prereq: PMUS 1200, 1210, and 1024. Coreq: PMUS 1025 and 2110. **Semester Hours:** 3 to 3

PMUS 2110 - Ear Training and Sight Singing III

An advanced laboratory course designed to help students listen to music analytically and to apply the harmonic principles learned in Music Theory III to the performance of music. Prereq: PMUS 1200 and PMUS 1210. Coreq: PMUS 2100 and PMUS 1023. **Semester Hours:** 1 to 1
When Offered: FALL

PMUS 2200 - Jazz Theory

Explores music theory as it applies to the genres of jazz and popular music. The topics include the theory of jazz improvisation, an analysis of jazz and popular music forms, the transcription and analysis of pop/jazz rhythms and melodies, and chord substitutions. Prereq: PMUS 1200.

Semester Hours: 3 to 3

PMUS 2220 - Commercial Electronic Music Composition

An investigation, analysis and application of contemporary electronic music compositional and production techniques in relation to commercial music and historical context. Prereq: PMUS 1200, PMUS 1210 and MUSC 2300. **Semester Hours:** 3 to 3

PMUS 2310 - Introduction to Songwriting

Studies the craft of songwriting. Emphasis is on the creation of original melodies and lyrics. A variety of non-classical contemporary musical styles are considered. Prereq: PMUS 1200, 4.0 credits from PMUS 1801 to PMUS 1823 (MIS Applied Lesson). **Semester Hours:** 3 to 3

PMUS 2400 - Performance Art and Experimental Music

Introduces the history, philosophies and techniques of the European and American Avant-Garde theatrical performance and music. A study of music's various roles provides students with opportunities for creative application. **Semester Hours:** 3 to 3

PMUS 2410 - Percussion II Ensemble

Intermediate Ensemble. Focus on percussion techniques and ensemble playing utilizing Afro-Cuban literature. Comprised of percussion instruments of both definite and indefinite pitch. Assumes basic rhythmic sight-reading ability. Introduces theoretical concepts. Develops collaborative learning, aural skills and interactive multicultural awareness. Prereq: Audition or meeting with ensemble faculty. **Semester Hours:** 1 to 1

PMUS 2420 - Electro/Acoustic Ensemble

Intermediate Ensemble. This course will study established methods used as agents of musical creativity in the practice of improvised music. Focus on real-time musical collaboration utilizing musical vocabularies from a wide range of sources. Instrumentation of many kinds may be utilized. Prereq: Audition or meeting with ensemble faculty. **Semester Hours:** 1 to 1

PMUS 2430 - Pop/Rock Ensemble

Intermediate Ensemble. This course will focus on group rehearsals of contemporary music with challenging technical and vocal requirements. Students will gain experience in transcribing and creating simple arrangements, learning adequate musicality, performing presentation and group cooperation. Prereq: Audition or meeting with ensemble faculty. **Semester Hours:** 1 to 1

PMUS 2440 - Chamber Ensemble

Intermediate Ensemble. Mixed instrumental group for string, wind, brass, piano, and percussion players. Students will develop sight-reading and improvisation skills and perform student originals and arrangements including repertoire from the Baroque period through the

Avant-Garde with no stylistic limitations. Prereq: Audition or meeting with ensemble faculty.

Semester Hours: 1 to 1

PMUS 2450 - Bluegrass Ensemble

Ensemble designed to give students the opportunity to explore Bluegrass music and related folk/country styles through performance, listening and discussion. Important artists, repertoire, musical trends, and historical perspectives will be studied. **Semester Hours:** 1 to 1 **When**

Offered: FALL SPR

PMUS 2502 - Applied Electric Bass

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury.

Note: Students must be accepted as an audition-based music major. Instructor permission.

Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1502 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2512 - Applied String Bass

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury.

Note: Students must be accepted as an audition-based music major. Instructor permission.

Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1512 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2522 - Applied Bassoon

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury.

Note: Students must be accepted as an audition-based music major. Instructor permission.

Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1522 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2532 - Applied Clarinet

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury.

Note: Students must be accepted as an audition-based music major. Instructor permission.

Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1532 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2542 - Applied Bass Clarinet

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury.

Note: Students must be accepted as an audition-based music major. Instructor permission.
Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1542 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2552 - Applied Flute

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury.
Note: Students must be accepted as an audition-based music major. Instructor permission.
Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1552 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2562 - Applied French Horn

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury.
Note: Students must be accepted as an audition-based music major. Instructor permission.
Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1562 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2572 - Applied Guitar

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury.
Note: Students must be accepted as an audition-based music major. Instructor permission.
Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1572 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2582 - Applied Banjo

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury.
Note: Students must be accepted as an audition-based music major. Instructor permission.
Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1582 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2612 - Applied Drum Kit

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury.
Note: Students must be accepted as an audition-based music major. Instructor permission.
Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1612 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2622 - Applied Oboe

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1622 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2632 - Applied World Percussion

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1632 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2642 - Applied Piano

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1642 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2652 - Applied Jazz Piano

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1652 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2662 - Applied Saxophone

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1662 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2672 - Applied Synthesizer

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission.

Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1672 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2682 - Applied Trombone

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury.

Note: Students must be accepted as an audition-based music major. Instructor permission.

Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1682 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2692 - Applied Trumpet

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury.

Note: Students must be accepted as an audition-based music major. Instructor permission.

Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1692 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2702 - Applied Violin

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury.

Note: Students must be accepted as an audition-based music major. Instructor permission.

Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1702 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2712 - Applied Viola

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury.

Note: Students must be accepted as an audition-based music major. Instructor permission.

Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1712 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2722 - Applied Cello

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury.

Note: Students must be accepted as an audition-based music major. Instructor permission.

Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1722 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2732 - Applied Voice

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1732 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2742 - Applied Tuba

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1742 (Two semesters). **Semester Hours:** 1 to 1

PMUS 2750 - Functional Guitar Skills: Acoustic Guitar Styles

This course is designed to introduce students to the fundamental architecture and techniques of contemporary acoustic guitar styles. The first part of the course will explore the techniques, repertoire and styles of Fingerstyle Guitar, while the second half will be dedicated to Flatpicking styles and techniques. **Semester Hours:** 2 to 2

PMUS 2751 - Functional Guitar Skills: Electric Guitar Styles

This course is designed to introduce students to the fundamental architecture and techniques of contemporary electric guitar styles with regard to studio and live performance situations. Students will also explore the business aspects of music performance including marketing, self-assessment, career strategies, recording, and press kits. **Semester Hours:** 2 to 2

PMUS 2762 - Applied Euphonium

Private music lessons for audition-based music majors. Lessons emphasize developing proficient technique, learning and performing advanced repertoire, demonstrating musicality, developing rhythmic accuracy and improvising. Students perform in a general recital and jury. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1762 (Two semesters). **Semester Hours:** 1 to 1

PMUS 3100 - US Music: Social & Political Impact

Examines and describes the social meaning of American music with particular reference to the roles of major ethnic groups in the creation of this music and the way that the music reveals attitudes toward these groups. **Semester Hours:** 3 to 3

PMUS 3110 - Social and Political Implications of American Music

Examines and describes the social meaning of American music with particular reference to the roles of major ethnic groups in the creation of this music, and the way that the music reveals attitudes toward these groups. **Semester Hours:** 3 to 3

PMUS 3200 - Popular Music Performance Skills

Students develop live performance skills including expression, stage presence and creating energy on stage, as well as connecting with the audience. **Semester Hours:** 2 to 2 **When Offered:** *FALL SPR*

PMUS 3210 - Introduction to Teaching Private Music Lessons

Prepares students to teach private music lessons. Includes a survey of teaching styles from around the world, exercises, guest lectures, practical guidance for establishing a teaching studio and student research presentations. **Semester Hours:** 3 to 3

PMUS 3300 - Advanced Jazz Improvisation

Explores the techniques and concepts of instrumental jazz/commercial improvisation and sight reading. Major concepts include understanding and interpreting the construction of jazz harmonic nomenclature and the mastery of the melodic elements of improvisation. **Semester Hours:** 2 to 2

PMUS 3310 - Intermediate Songwriting

Presents concepts of songwriting that build upon those presented in MUSC 2300. Students are expected to understand and discuss musical concepts and lyric structure and use these concepts in the creation of original songs. Prereq: PMUS 1024, PMUS 1200, and **Semester Hours:** 3 to 3

PMUS 3320 - Popular Music Arranging

This course will focus on techniques, technologies and strategies for contemporary arranging. Students score original compositions for various instrumentation using notation software. **Semester Hours:** 3 to 3

PMUS 3330 - Advanced Vocal Improvisation

Provides study of harmony, style and advanced improvisation techniques for vocalists. Course activities include study of scat singing, syllables, accents, rhythmic patterns, and phrasing over standard chord changes in several genres. **Semester Hours:** 2 to 2 **When Offered:** *SPRING*

PMUS 3410 - Percussion III Ensemble

Advanced Ensemble. Focus on percussion techniques and ensemble playing utilizing Afro-Cuban literature. Comprised of percussion instruments of both definite and indefinite pitch. Assumes intermediate rhythmic sight-reading ability. Develops collaborative learning and awareness of drumming as universal language. Prereq: Audition or meeting with ensemble faculty. **Semester Hours:** 1 to 1

PMUS 3430 - Jazz Combo Ensemble

Advanced Ensemble. Instrumental jazz group. This course will focus on group rehearsals of bebop, swing, funk, & fusion. Prereq: Audition or meeting with ensemble faculty. **Semester Hours:** 1 to 1

PMUS 3440 - Voz de la Clave

Advanced Ensemble. This ensemble performs Salsa and Afro-Caribbean music. Ensemble time is spent rehearsing repertoire and learning about Latin music concepts. Prereq: Audition or meeting with ensemble faculty. **Semester Hours:** 1 to 1

PMUS 3450 - Singer/Songwriter Ensemble

Advanced Ensemble. Focus on student compositions of original songs with lyrics and instrumental accompaniment including creation of lead sheets for band performances. Individual and group songwriting is explored. Students participate in community-building activities including community engagement and a songwriting retreat. Prereq: Audition or meeting with ensemble faculty. **Semester Hours:** 1 to 1

PMUS 3460 - Ninth Street Singers Ensemble

Signature Ensemble. Elite a cappella mixed choir. This course will focus on group rehearsals of various genres of vocal ensemble music, including pop, rock, jazz, musical theater, and gospel. Prereq: Audition or meeting with ensemble faculty. **Semester Hours:** 1 to 1

PMUS 3502 - Applied Electric Bass

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1502 and PMUS 2502 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3512 - Applied String Bass

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1512 and PMUS 2512 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3522 - Applied Bassoon

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1522 and PMUS 2522 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3532 - Applied Clarinet

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1532 and PMUS 2532 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3542 - Applied Bass Clarinet

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1542 and PMUS 2542 (two semesters each), and successful completion of sophomore proficiency **Semester Hours:** 2 to 2

PMUS 3552 - Applied Flute

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1552 and PMUS 2552 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3562 - Applied French Horn

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1562 and PMUS 2562 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3572 - Applied Guitar

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1572 and PMUS 2572 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3582 - Applied Banjo

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1582 and PMUS 2582 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3612 - Applied Drum Kit

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1612 and PMUS 2612 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3622 - Applied Oboe

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1622 and PMUS 2622 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3632 - Applied World Percussion

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1632 and PMUS 2632 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3642 - Applied Piano

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1642 and PMUS 2642 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3652 - Applied Jazz Piano

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1652 and PMUS 2652 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3662 - Applied Saxophone

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1662 and PMUS 2662 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3672 - Applied Synthesizer

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1672 and PMUS 2672 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3682 - Applied Trombone

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1682 and PMUS 2682 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3692 - Applied Trumpet

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1692 and PMUS 2692 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3702 - Applied Violin

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1702 and PMUS 2702 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3712 - Applied Viola

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1712 and PMUS 2712 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3722 - Applied Cello

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1722 and PMUS 2722 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3732 - Applied Voice

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1732 and PMUS 2732 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3742 - Applied Tuba

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1742 and PMUS 2742 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3762 - Applied Euphonium

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing and performing repertoire, demonstrating a high level of musicality, cultivating superior performance practice, identifying musical goals and preparing and performing a junior recital. Note: Students must be an audition-based music major and accepted to performance emphasis. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1762 and PMUS 2762 (two semesters each), and successful completion of sophomore proficiency. **Semester Hours:** 2 to 2

PMUS 3772 - Applied Singer/Songwriter

This is a 2-credit course consisting of one-on-one, hour-long weekly lessons in songwriting and performance skills. Aspects of transcription, analysis, and career development will be incorporated. Co-requisites - PMUS 1500, enrollment in an ensemble an **Semester Hours:** 2 to 2 **When Offered:** *FALL SPR*

PMUS 3820 - Music History Modules

This modular course surveys various popular, Western European, and world music styles. **Semester Hours:** 1 to 1

PMUS 3825 - Real History of Rock and Roll

Examines the historical and social framework developments in music from its roots in country, through jazz and blues to current trends. Special emphasis is given to guest lecturers and their expertise performing, covering and presenting the music. **Semester Hours:** 3 to 3

PMUS 3827 - History Of Jazz

This course will give students an inside look at the history and radical changes brought about by the musicians, technology and the social interplay between US social history and jazz music by examining the music & musicians that performed it. **Semester Hours:** 3 to 3

PMUS 3830 - History and Literature of Music I

This course provides a historical perspective of Western music literature from the medieval through the classical era. **Semester Hours:** 3 to 3

PMUS 3831 - History and Literature of Music II

This course provides a historical perspective of Western music literature from the Romantic era through the present day. **Semester Hours:** 3 to 3

PMUS 3840 - Independent Study: PMUS

Semester Hours: 1 to 3

PMUS 4060 - Music Theory Analysis

Students analyze the harmonic, melodic, and formal aspects of the music from various musical time periods and genres which include Baroque, Classical, Romantic, Contemporary Classical, jazz and popular music. Prereq: PMUS 2110 and 2200. **Semester Hours:** 3 to 3

PMUS 4200 - Senior Recital Project

The capstone course for performance majors that coincides with their senior recital. The project focuses on musical and thematic material from the student's senior recital and may include: historical research, theoretical analysis, transcriptions and creation of a digital portfolio.

Semester Hours: 2 to 2

PMUS 4310 - Advanced Songwriting

Students will continue to learn the craft of songwriting with focus on the skills of advanced lyric writing technique. Students will expand their knowledge of theoretical aspects of harmony and melody. **Semester Hours:** 3 to 3 **When Offered:** FALL

PMUS 4410 - Claim Jumpers Ensemble

Signature Ensemble. The Claim Jumpers will focus on group rehearsals of significant traditional jazz literature, masterworks of classic jazz of the 1920's, and creativity within the traditional jazz genre at the highest level. Prereq: Audition or meeting with ensemble faculty. **Semester Hours:** 1 to 1

PMUS 4430 - Guitar Ensemble

Signature Ensemble. Advance jazz guitar group. This course will focus on group rehearsals of bebop and fusion. Prereq: Audition or meeting with ensemble faculty. **Semester Hours:** 1 to 1

PMUS 4460 - Mix A Cappella Ensemble

Advanced a cappella performing group, working in a wide range of stylistic offerings. Enrollment by audition only. **Semester Hours:** 1 to 1

PMUS 4502 - Applied Electric Bass

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1502, PMUS 2502, PMUS 3502 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4512 - Applied String Bass

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1512, PMUS 2512, PMUS 3512 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4522 - Applied Bassoon

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1522, PMUS 2522, PMUS 3522 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4532 - Applied Clarinet

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1532, PMUS 2532, PMUS 3532 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4542 - Applied Bass Clarinet

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1542, PMUS 2542, PMUS 3542 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4552 - Applied Flute

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1552, PMUS 2552, PMUS 3552 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4562 - Applied French Horn

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an

audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1562, PMUS 2562, PMUS 3562 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4572 - Applied Guitar

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1572, PMUS 2572, PMUS 3572 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4582 - Applied Banjo

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1582, PMUS 2582, PMUS 3582 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4600 - Topics in Music Performance

Various topics related to music performance. **Semester Hours:** 3 to 3

PMUS 4612 - Applied Drum Kit

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1612, PMUS 2612, PMUS 3612 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4622 - Applied Oboe

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1622, PMUS 2622, PMUS

3622 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4632 - Applied World Percussion

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1632, PMUS 2632, PMUS 3632 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4642 - Applied Piano

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1642, PMUS 2642, PMUS 3642 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4652 - Applied Jazz Piano

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1652, PMUS 2652, PMUS 3652 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4662 - Applied Saxophone

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1662, PMUS 2662, PMUS 3662 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4672 - Applied Synthesizer

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1672, PMUS 2672, PMUS 3672 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4682 - Applied Trombone

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1682, PMUS 2682, PMUS 3682 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4692 - Applied Trumpet

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1692, PMUS 2692, PMUS 3692 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4702 - Applied Violin

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1702, PMUS 2702, PMUS 3702 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4712 - Applied Viola

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an

audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1712, PMUS 2712, PMUS 3712 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4722 - Applied Cello

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1722, PMUS 2722, PMUS 3722 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4732 - Applied Voice

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1732, PMUS 2732, PMUS 3732 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4742 - Applied Tuba

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1742, PMUS 2742, PMUS 3742 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4762 - Applied Euphonium

Private music lessons for audition-based music majors. Lessons emphasize perfecting musical technique, memorizing professional-level repertoire, demonstrating an expert level of musicality, analyzing repertoire, achieving a musical identity, cultivating superior performance practice and preparing and performing a senior recital. Note: Students must be accepted as an audition-based music major. Instructor permission. Coreq: PMUS 1500, enrollment in an ensemble and at least 7 non-applied lesson credits. Prereq: PMUS 1762, PMUS 2762, PMUS 3762 (two semesters each), and successful completion of Junior Recital. **Semester Hours:** 2 to 2

PMUS 4772 - Applied Singer/Songwriter

This is a 2-credit course consisting of one-on-one, hour-long weekly lessons in songwriting and performance skills. Aspects of transcription, analysis, and career development will be incorporated. Plan Code: MUSC-BS SWR; Co-requisites - PMUS 1500, enro **Semester Hours:** 2 to 2 **When Offered:** *FALL SPR*

PMUS 4840 - Independent Study: PMUS

Semester Hours: 1 to 3

Pre-Nursing Courses (PRNU)

PRNU 2939 - Internship

Pre-Health internship offering students an opportunity to obtain hands-on experience in a clinical setting; will not apply to the Biology major. Involves application of technical concepts and skills in supervised allied health environment, such as a hospital or medical clinic. Note: May not be used as an upper-division elective. Prereq: One year of general biology with a grade of 'C' (2.0) or higher, junior standing, and a GPA of 2.75 or higher. **Semester Hours:** 1 to 3

PRNU 3939 - Internship

Pre-Health internship offering students an opportunity to obtain hands-on experience in a clinical setting; will not apply to the Biology major. Involves application of technical concepts and skills in supervised allied health environment, such as a hospital or medical clinic. Note: May not be used as an upper-division elective. Prereq: One year of general biology with a grade of 'C' (2.0) or higher, junior standing, and a GPA of 2.75 or higher. **Semester Hours:** 1 to 3

Political Science Courses (PSCI)

PSCI 1001 - Introduction to Political Science: The Quest for Freedom and Justice

Introduces the study of politics, its human importance, and its relationship to social institutions. Analysis of the relationship between individual political behavior and characteristics of the political system. Development of key concepts such as power, legitimacy, authority, political socialization, and revolution. Note: Required of all PSCI majors. **Semester Hours:** 3 to 3

PSCI 1101 - American Political System

General introduction to the American political system with emphasis upon citizen involvement, the relationships among the various levels and branches of government, formal and informal institutions, processes, and behavior. Note: Required of all PSCI majors. **Semester Hours:** 3 to 3

PSCI 1111 - Freshman Seminar

Semester Hours: 1 to 3

PSCI 2001 - Topics in Political Science

Covers different areas of politics. Note: May be taken more than once for credit when topics vary. **Semester Hours:** 1 to 3

PSCI 2006 - Global Political Issues

Studies global political issues, exploring the broad forces at play in the world: international economics, national interests, military power, nationalism, ethnicity, the environment and human rights. Discussion of world events and underlying global issues, incorporating analytical tools used by political scientists. **Semester Hours:** 3 to 3

PSCI 2840 - Independent Study

An opportunity for lower division students who demonstrate academic potential to pursue the study of some subject of interest in greater detail, with supervision from a faculty member in the department. Subjects chosen and arrangements for assignments to be made between student and faculty. Prereq: One semester of course work at Downtown Denver Campus. **Semester Hours:** 1 to 3

PSCI 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 1 to 3

PSCI 3000 - Topics: Conference Participation

Semester Hours: 1 to 1

PSCI 3002 - Topics in Political Science

Covers different areas of politics. Note: May be taken more than once for credit when topics vary. **Semester Hours:** 1 to 3

PSCI 3011 - Research Methods

Design of political/social research, both qualitative and quantitative. Applications of statistical techniques and procedures to social and political phenomena. Use of computer and the Internet.

Semester Hours: 3 to 3

PSCI 3022 - Introduction to Comparative Politics

Comparison of the basic political features of selected countries with focus on political behavior, institutions and political cultures. Themes examined include development, democratization, social movements, political instability and globalization. **Semester Hours:** 3 to 3

PSCI 3034 - Race, Gender, Law and Public Policy

Historical overview of race and gender relations in the U.S. and an examination of the treatment of issues of race and gender in the judicial system and public policy. **Semester Hours:** 3 to 3

PSCI 3035 - Political Movements: Race and Gender

Examines the emergence, growth, and decline of social movements for race and gender equality. Discussion of political issues of race and gender in the 1990s. **Semester Hours:** 3 to 3

PSCI 3042 - Introduction to International Relations

Basic background and theories of international relations with focus on the interaction between nation states, international organizations, regimes and transnational movements. Themes examined include foreign policy conduct, international security and political economy, human rights and environmental management. **Semester Hours:** 3 to 3

PSCI 3064 - Power and Empowerment in the United States

Introduces U.S. political economy. Analysis of the political and economic forces and structures that shape the opportunities available to the American people. Among topics included are reciprocal impacts of government and business, the federal budget, taxation, lobbying and special interests, community organizing, and elections. **Semester Hours:** 3 to 3

PSCI 3214 - Federal Law and American Indians

Examines the legal and political history of the U.S. in relation to American Indian Nations. Focuses on specific laws and Supreme Court cases in federal Indian law, with analysis of U.S. policy. There will be some comparison with Indian policies of other countries. Cross-listed with ETST 3216. **Semester Hours:** 3 to 3

PSCI 3333 - Utopian Transformations

Explores cutting-edge theory and practice in social change that transcends traditional left-right divisions and merely incremental reform. Utopian and transformative experiments studied include communes, worker cooperatives, neighborhood organizing, and green parties. Note: Service-learning option can fulfill major requirement. **Semester Hours:** 3 to 3

PSCI 3347 - Film and Politics

Presents historical and contemporary films to introduce students to critical evaluation of film as a political medium. Whether designed as propaganda or entertainment, films shape and reflect critical issues in our political and social culture. **Semester Hours:** 3 to 3

PSCI 3840 - Independent Study: PSCI

Semester Hours: 1 to 3

PSCI 3914 - The Urban Citizen

Course emphasis is community, the individual, and the good life. Experiential learning and classroom discussions about capacities of urban citizens. Focus is on social, political, and economic resources that individuals command, issues of equality and inequality, and possibilities of constructive change. Prereq: A willingness to spend a semester working and studying together as a team in both the classroom and the community. **Semester Hours:** 3 to 3

PSCI 3939 - Internship

Designed experiences involving application of political concepts and skills in supervised employment situations. Prereq: Junior or senior standing and 3.0 GPA. **Semester Hours:** 1 to 3

PSCI 4002 - Topics in Political Science

Specialized areas of politics. Note: May be taken more than once for credit when topics vary. **Semester Hours:** 3 to 3

PSCI 4009 - Politics of the Budgetary Process

Develops each student's understanding of budgeting and financial management in the public and nonprofit sectors. An overview of public sector and nonprofit fiscal management is provided, along with thorough exploration of the political influences that affect financial decision-making. **Semester Hours:** 3 to 3

PSCI 4011 - GIS in Political Science

Computer lab course developing methodological skills in Geographic Information Systems (GIS) in political contexts. Geospatial computerized mapping skills are important in political fields such as urban planning, electoral analysis, environmental justice, demographics, public health, and criminal justice. Designed for beginners. Cross-listed with PSCI 5011. **Semester Hours:** 3 to 3

PSCI 4014 - Media and Politics

Explores the impact of the news media on the American political system, including public policy and citizen participation, and addresses trends in news coverage and media ownership, and their impact on public opinion. Prereq: PSCI 1001 and 1101 or permission of instructor. **Semester Hours:** 3 to 3

PSCI 4024 - Legislatures and Legislation

Structure and organization of legislatures, informal influences, and the process of statute law making. **Semester Hours:** 3 to 3

PSCI 4025 - Local Governance and Globalization

Introduces international political economy, consequences of globalization for localities, interplay between wealth and power among nations, multinational corporations, NGOs and the UN, and impact of their actions on local governments. Topics include development, aid, trade, outsourcing, eco-sustainability and global equity. Prereq: Graduate standing or permission of instructor. Cross-listed with PSCI 5025. **Semester Hours:** 3 to 3

PSCI 4034 - Political Parties and Pressure Groups

Democrats, Republicans, third parties, and pressure groups in the United States. Analysis of pressure politics and political behavior. Impact of parties and pressure groups on the public good. **Semester Hours:** 3 to 3

PSCI 4044 - The Presidency

An overview of the historical, constitutional, and functional aspects of the presidency. Focuses on the powers and vulnerabilities of the presidency and on the style and politics of the current president. Prereq: PSCI 1101. Cross-listed with PSCI 5044. **Semester Hours:** 3 to 3

PSCI 4057 - Religion and Politics

Exploration of: (1) theoretical perspectives on the relationship between religion and politics; (2) causes of and justifications for the historical development of the Western separation of "church and state;" (3) contemporary responses to and analyses of this separation; and (4) several current debates about public policy in America that reveal tensions between these two spheres. Cross-listed with PSCI 5057 and RLST 4500, 5500. **Semester Hours:** 3 to 3

PSCI 4074 - Urban Politics

The crisis and the promise of U.S. cities. Nature and roots of critical urban problems. Citizen involvement in urban decision making. Government as problem and as solution. **Semester Hours:** 3 to 3

PSCI 4084 - Local Government and Administration

Policy and administrative challenges faced by local government in the 21st century. Emphasis on cities under federalism, alternative forms of city governance, and new challenges from increasingly diverse constituents. Issues of poverty, public safety, health, transportation, environment, corruption, and accountability. Cross-listed with PSCI 5084. **Semester Hours:** 3 to 3

PSCI 4085 - Comparative Public Policy

Comparison of public policy making in such areas as health care, environment, family assistance, and employment in the United States and at least two other countries. Prereq: Graduate standing or permission of instructor. Cross-listed with PSCI 5085. **Semester Hours:** 3 to 3

PSCI 4094 - Seminar: American Politics

Foundations of U.S. politics and contemporary political issues. Federal/state/community relations. Relationship among the three branches of the Federal government. Colorado controversies arising under the U.S. Constitution. Cross-listed with PSCI 5014. **Semester Hours:** 3 to 3

PSCI 4105 - Comparative Politics: Europe

An intensive and comparative analysis of the political systems and processes of Europe. Emphasis on political culture and economy; executive-legislative relationships; electoral systems; political parties and interest groups; political conflict and citizen participation; and the impact of social changes on political institutions. Cross-listed with PSCI 5105. **Semester Hours:** 3 to 3

PSCI 4115 - Third World Politics

Examines the factors challenging political stability in low income nations and the prospects for democracy and economic development. **Semester Hours:** 3 to 3

PSCI 4124 - Denver Politics

Surveys Denver's dominant political and economic forces and community agendas that compete with the downtown growth machine. Examines urban renewal strategies, gentrification and grass-roots resistance, and the role of officials in shaping Denver's distribution of wealth and life-opportunities. **Semester Hours:** 3 to 3

PSCI 4126 - Introduction to International Political Economy

A short introduction to international economy, including classic readings of international political economy (such as Smith, Ricardo, Marx, Lenin), and more recent work on globalization, applying related theories to the current world economy. **Semester Hours:** 3 to 3

PSCI 4144 - Indigenous Political Systems

Surveys political theory and practice in indigenous societies in the Americas. Examines the impact of indigenous political thought on Euro-American politics, especially the U.S. Constitution, and explores the contemporary impact of indigenous people on current politics. Cross-listed with ETST 4144. **Semester Hours:** 3 to 3

PSCI 4146 - Indigenous Politics

Surveys the status of the world's native peoples and nations, and the role of law and politics in the future of indigenous peoples in the global arena. Examines questions of human rights, economic development, and international law and politics. Prereq: PSCI 1001. Cross-listed with PSCI 5145 and ETST 4146. **Semester Hours:** 3 to 3

PSCI 4155 - Political Systems of the Middle East and North Africa

Comparative analysis of political processes in the Middle East and North Africa. Islamic political theory and its contemporary manifestations. The role of nationalism and the quest for modernity in the political development of this region. Parties and programmed modernization in transitional politics. Violent and nonviolent change. **Semester Hours:** 3 to 3

PSCI 4156 - The Arab-Israeli Peace Process

Critical analysis of Arab and Israeli perspectives on the on-going peace negotiations in the Middle East. Historical background and religious-cultural aspects of current problems. Prereq: Upper division standing. Cross-listed with ETST 4156. **Semester Hours:** 3 to 3

PSCI 4165 - Islamic Politics and Culture

Comprehensive, in-depth study of Islam and Muslims. Islam is viewed as a "way of life" with social, economic, psychological, spiritual, and political implications. Among topics to be examined are: women in Islam, Jihad, fundamentalism, Islamic movements, Islam and the West. Cross-listed with RLST 3100. **Semester Hours:** 3 to 3

PSCI 4185 - Corruption in the U.S. and Abroad

Explores the causes and consequences of administrative and political corruption in developed and developing countries, and evaluates various anti-corruption strategies. Prereq: PSCI 1001 or 3022. **Semester Hours:** 3 to 3

PSCI 4186 - East Asia in World Affairs

Political and economic systems and foreign policies of East Asian powers, such as China, Japan, Taiwan, South Korea and Hong Kong; interactions of these powers and their collective economic and political roles in world affairs; major theoretical approaches to the study of East Asian powers. **Semester Hours:** 3 to 3

PSCI 4195 - Political Systems of Sub-Saharan Africa

Analysis of major types of political systems in sub-Saharan Africa and intensive case studies of selected countries exemplifying each type. **Semester Hours:** 3 to 3

PSCI 4206 - Social Movements, Democracy and Global Politics

Examines global social movements as new political actors within world politics; how theoretical perspectives in international relations and democracy address these actors; and the forms of interaction among these actors, states, and global governance institutions. Cross-listed with PSCI 5206. **Semester Hours:** 3 to 3

PSCI 4207 - Theories of Social and Political Change

Conservative, radical, and incremental approaches to change. Role of psychological and sociological factors in political change. Comparative perspectives on change. Self-perpetuation processes of power systems and their vulnerabilities. Requisites of system maintenance and system change. Selected case studies. **Semester Hours:** 3 to 3

PSCI 4215 - Women's Rights, Human Rights: Global Perspectives

Explores the global feminist movement's campaign to "engender" human rights. Examination of women's human-rights issues and the critique of this campaign as representing cultural imperialism. Prereq: Six hours of political science or instructor permission. Cross-listed with WGST 4215. **Semester Hours:** 3 to 3

PSCI 4216 - International Politics: Human Rights

The system of nation states, concepts of national interest, goals of foreign policies, conduct of diplomacy, and the bearing of these elements on the problem of human rights. Presentation and evaluation of the solutions that have been offered for the securing of justice and the maintenance of peace. **Semester Hours:** 3 to 3

PSCI 4224 - Dictatorships in 21st Century

Analyzes and classifies political systems of non-democratic regimes. Reviews earlier and contemporary theories that explain the origins, survival and death of authoritarian regimes. Discusses the impact of dictatorial rule on domestic developments as we **Semester Hours:** 3 to 3

PSCI 4225 - Democracy and Democratization

Examines the conditions under which countries turn from authoritarianism towards democracy and become stable democratic regimes. Also examines the impact of foreign and international factors on new democracies. Cross-listed with PSCI 5225. **Semester Hours:** 3 to 3

PSCI 4226 - The United Nations in World Affairs

Current operation and future potential of the United Nations as a complex actor in world affairs, both expressing conflicting interests of its participants and promoting universal goals, including world peace, human rights, and environmental protection. **Semester Hours:** 3 to 3

PSCI 4235 - Politics and Markets in Latin America

Explores political economic development in Latin America within the context of the world system. Includes the study of colonization, land tenure, foreign investment, authoritarianism, militarism, social and revolutionary movements, human rights and democratization. **Semester Hours:** 3 to 3

PSCI 4236 - American Foreign Policy

Examines the postwar events, controversies, and most recent challenges in U.S. foreign policy. Analyses of the major sources of U.S. foreign policy, such as ideology, national interests, and national power. Attention to the pattern and process of foreign policy-making. **Semester Hours:** 3 to 3

PSCI 4237 - American National Security

Examines American national security, utilizing an interdisciplinary analysis of its domestic historical development and its function in the current global context. **Semester Hours:** 3 to 3

PSCI 4248 - Gender, Globalization and Development

Analyzes the effects of globalization on the gendered processes of international development and strategies to empower women to achieve gender justice across race, class and national divisions. Cross-listed with PSCI 5245 and WGST 4248/5248. **Semester Hours:** 3 to 3

PSCI 4265 - Social Justice and Globalization

Examines issues of justice and ethical responsibility in a globalizing world. Do moral obligations of individuals and institutions end at national borders or do they encompass all human beings and extend to the environment and to future generations? Cross-listed with PSCI 5265.

Semester Hours: 3 to 3

PSCI 4266 - International Law

Investigates the body of law that regulates relations between nations and provides a framework for solving common problems and disputes between nations. Prereq: Upper division political science major. Cross-listed with PSCI 5266. **Semester Hours:** 3 to 3

PSCI 4274 - Conflict Resolution and Public Consent Building

Alternative strategies for resolving or mediating conflicts facing public or nonprofit organizations and for building public consent, with emphasis on personal, interpersonal, organizational, interest-group, cross-cultural, and roots of conflict and bases for consent. Cross-listed with PSCI 5274. **Semester Hours:** 3 to 3

PSCI 4276 - Conflicts and Rights in International Law

Explores contending interpretations and practices in international law regarding issues such as the legitimacy of humanitarian intervention, efficacy of truth commissions, tensions between truth and justice in cases of genocide and war crimes, and legal changes needed to devise viable rules. Cross-listed with PSCI 5276. **Semester Hours:** 3 to 3

PSCI 4286 - International Relations: War or Peace?

Presents alternative theoretical frameworks for the explanation of war and peace. Investigations of the efficacy of international law, just-war norms and the UN in preventing or containing conflict. Prereq: PSCI 1001. Cross-listed with PSCI 5286. **Semester Hours:** 3 to 3

PSCI 4324 - Politics, Public Policy and Leadership

Role of politics in public and nonprofit sectors. Theories of administration and policy-making, emphasizing the role of leadership in public outcomes. Hands-on approach to case studies and use of students' policy experiences in practical application of theories. Cross-listed with PSCI 5324. **Semester Hours:** 3 to 3

PSCI 4326 - Advanced International Political Economy: Globalization

Engages the current debate about globalization. Conceptualizes globalization and evaluates the pros and cons of global trade and finance for developed and developing countries. Develops a model for a sustainable and just global economy. Prereq: PSCI 4126. Cross-listed with PSCI 5326. **Semester Hours:** 3 to 3

PSCI 4330 - U.S. Health Policy

The role of public health policy as legislated at the federal and state levels. Individual health policy (e.g. social security and managed care) and public health policy (e.g. mandatory immunizations, HIV testing, air and water quality). **Semester Hours:** 3 to 3

PSCI 4354 - Environmental Politics

Political, legal, and economic forces in environmental law and policy. Special emphasis on air and water pollution and on threats to public and agricultural land. Environmental groups and their opponents. **Semester Hours:** 3 to 3

PSCI 4365 - Global Ecological Crises

Overview of global ecological problems such as climate change, transboundary pollutions, and loss of bio-diversity in an attempt to understand the political, economic, and cultural forces behind these problems and the status of legal and policy initiatives to address them. **Semester Hours:** 3 to 3

PSCI 4374 - Public Priorities for the 21st Century

Identification of and planning for social, political, and economic trends in American society likely to transform governmental, nonprofit, and private entities. Rigorous examination of and debate on competing priorities such as liberty, security, welfare, equality, diversity, growth and ecology. Cross-listed with PSCI 5374. **Semester Hours:** 3 to 3

PSCI 4407 - Early Political Thought

Main currents of political thought in their historical setting from Plato to Machiavelli, with a critical evaluation of those elements of continuing worth. **Semester Hours:** 3 to 3

PSCI 4414 - Organizational Change Agents

Explores strategies for changing public and nonprofit organizations and of ways leadership abilities can be used for this purpose. Analysis of obstacles to organizational change and of methods for overcoming them. Principles of change applied to real-life contexts. Cross-listed with PSCI 5514. **Semester Hours:** 3 to 3

PSCI 4417 - Modern Political Thought

Main currents of political thought in their historical setting from the 17th century to the present. Development of the student's own political theory. PSCI 4407 is not a prerequisite for PSCI 4417. **Semester Hours:** 3 to 3

PSCI 4427 - Law, Politics and Justice

Analysis of the relationship of politics, law, and justice, particularly the degree to which moral norms and political concerns should and do influence legal standards and their perceived legitimacy. **Semester Hours:** 3 to 3

PSCI 4437 - Coercion and the State

An analysis of: (1) the historical emergence of the modern state; (2) the theoretical justifications for the concentration of political power and the activist state; (3) the internationalization of the European state system; and (4) anarchist and Fourth World challenges. **Semester Hours:** 3 to 3

PSCI 4444 - Contemporary Culture and Politics in America

Intellectual and experiential investigation of the interplay of culture and politics in American society, as manifested in literature, social and political philosophy, psychological writings and trends, radical movements, popular culture, and daily behavior. **Semester Hours:** 3 to 3

PSCI 4446 - Advanced Indigenous Peoples' Politics

Builds upon the theoretical and applied foundations of PSCI 4146. Intensive study of international legal and political developments are examined, particularly in the United Nations and the Organization of American States systems. Prereq: PSCI 4144 or 4146 or permission of instructor. Cross-listed with PSCI 5446. **Semester Hours:** 3 to 3

PSCI 4457 - American Political Thought

American law, politics, and conflict. History and development of American political theories and ideas from Native American roots through the colonial period to the present. Political theory and practice in the U.S. today. **Semester Hours:** 3 to 3

PSCI 4477 - Constitutional Law I

Nature and scope of the following American constitutional principles as developed by the U.S. Supreme Court: federalism, jurisdiction of the federal courts, separation of powers, the taxing power, and the commerce power. Case method. **Semester Hours:** 3 to 3

PSCI 4487 - Constitutional Law II

Continuation of PSCI 4477, with emphasis on the war powers of the president, citizenship, the Bill of Rights, and the Civil War amendments. (Case method.) Note: PSCI 4477 is not a prerequisite for PSCI 4487. **Semester Hours:** 3 to 3

PSCI 4494 - Judicial Politics

Examines principal actors in the legal system: police, lawyers, judges, citizens. About half of this course is devoted to the study of judicial behavior, especially at the Supreme Court level. Political and personal influences on judicial behavior. **Semester Hours:** 3 to 3

PSCI 4505 - Political System of Russia and Its Neighbors

The class focuses on the political values, institutions and actors of Russia and its neighboring countries, covering the political developments since the late 20th century. The relations between Russia, the European Union and the United States are also analyzed. **Semester Hours:** 3 to 3

PSCI 4545 - Immigration Politics

Introduces students to central theories of migration and a survey of immigration law and policy in the 20th century. Highlights experiences of Mexican and Latin American immigrants and related topics, including: U.S.-Mexican foreign relations, bilingual education, undocumented immigration and globalization. Cross-listed with PSCI 5545. **Semester Hours:** 3 to 3

PSCI 4554 - Chicano and Latino Politics

Analysis of the social, cultural, and economic factors that affect political behavior of Latinos. Special attention is paid to the Mexican American cultural heritage and to relations between

Mexican Americans and Anglo Americans. Cross-listed with ETST 4558. **Semester Hours:** 3 to 3

PSCI 4555 - International Women's Resistance

Examines local and international struggles of women to build peace and justice by resisting systems of inequality such as colonialism, racism, patriarchy, globalization, and religious intolerance. Cross-listed with PSCI 5555, ETST 4555 and WGST 4555/5555. **Semester Hours:** 3 to 3

PSCI 4564 - Gender and Politics

Analysis of the political experience of women and of strategies for change. Emphasis on the U.S. Cross-listed with WGST 4564. **Semester Hours:** 3 to 3

PSCI 4605 - Politics and Governments of South Asia

Studies the political systems of Bangladesh, India, Pakistan, Sri Lanka and Nepal. The impact of British rule on the development of political institutions on the subcontinent as well as problems of political development at all levels. **Semester Hours:** 3 to 3

PSCI 4615 - Politics and Government of China

Political and governmental changes within China, from the 19th century to the present. Primary emphasis on contemporary political systems and sociopolitical problems. China's struggle for independence and economic development. The Chinese revolutions, Maoist communism, and the post-Maoist period. **Semester Hours:** 3 to 3

PSCI 4644 - Ethical Responsibilities of Leaders

Explores concepts of ethical decision making within the context of public leadership in both the public and non-profit sectors. Universal and individual ethical standards are examined. Cross-listed with PSCI 5644. **Semester Hours:** 3 to 3

PSCI 4645 - Comparative Political Leadership

Comparative study of historical, socio-cultural, and psychological bases of political leadership. Leadership types in peasant societies, empires, and revolutionary movements. Dilemmas of democratic versus authoritarian leadership in modernizing and industrial states. **Semester Hours:** 3 to 3

PSCI 4726 - Russian and Chinese Foreign Policy

Foreign policies of Russia and China; relations with Western powers and the Third World; interaction of domestic developments and foreign policy; role of national interest, ideology, and elite personalities. **Semester Hours:** 3 to 3

PSCI 4736 - The Middle East in World Affairs

Evolution and revolution in the Middle East. The character of nationalism in the area. Analysis of inter-regional and international problems affecting the Middle East, with special emphasis on current Arab-Israeli relations. **Semester Hours:** 3 to 3

PSCI 4757 - Legal Reasoning and Writing

Introduces the fundamentals of legal reasoning and legal argumentation through intensive class discussion, formal debate and writing. Attention is given to the relationship between case and statutory law and their application in trial and appeals courts in the United States. Prereq: ENGL 1020, 2030, and any one 3000-level English/writing course or COMM 3120. Cross-listed with PSCI 5747, COMM 4750, 5750. **Semester Hours:** 3 to 3

PSCI 4807 - Political Violence

Investigates different types of political violence including genocide, ethnic and religious conflict, revolution, terrorism, war, state repression and others. Introduces theories of individual, collective and institutional violence, applies them to a range of case studies and explores possible solutions. **Semester Hours:** 3 to 3

PSCI 4808 - Strategies of Peacebuilding

The course investigates the theories and strategies of peacebuilding in societies that have endured intrastate conflict and/or massive human rights violations and asks whether peace and justice and democracy can or should work together and how forgiveness a **Semester Hours:** 3 to 3

PSCI 4827 - Women and the Law

Examines the role of the courts in the development of public policy toward women; how the legal system affects the economic power, family roles, safety and political participation of women. Cross-listed with ETST 4827 and WGST 4827. **Semester Hours:** 3 to 3

PSCI 4837 - Contemporary Issues in Civil Liberties

Conflicting rights of individuals and groups in several areas of civil liberties, including religious groups, free speech, sexual freedom, racial quotas, and anti-governmental actions and publications. This course includes case law, readings, guest speakers and case discussions. Cross-listed with PSCI 5837. **Semester Hours:** 3 to 3

PSCI 4840 - Independent Study: PSCI

An opportunity for advanced students with good scholastic records, and with appropriate courses completed, to pursue independently the study of some subject of special interest to them. Subjects chosen and arrangements made to suit the needs of each student. Note: Primarily for seniors. Prereq: 15 semester hours in political science and permission of instructor. **Semester Hours:** 1 to 3

PSCI 4934 - CU at the Capitol

Examines current year legislative session of Colorado General Assembly. Study of various elected leaders; Colorado party system; Governor-Assembly relations; citizen and lobbyist influence; corruption and virtue in politics; current affairs. Each student will be placed in a state government internship. **Semester Hours:** 3 to 3

PSCI 4995 - Travel Study

Students study various topics at an off-campus location, either a foreign country or another city or region in the United States, led by a Downtown Denver Campus instructor. Prereq: PSCI 1001 or 3022 or permission of instructor. Cross-listed with PSCI 5995. **Semester Hours:** 1 to 3

PSCI 5000 - State of the Discipline

Introduces graduate study in political science. Provides an overview of theories and methods in the four fields of American politics, political theory, comparative politics and international relations. Guest lectures by department faculty. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

PSCI 5005 - Political Theory After 9/11

The events of 9/11 brought into sharp focus dilemmas in international politics, including the responses to American hegemony, return of religion, nature of "terrorism" and implications for democracy. This course explores diverse interpretations of these challenges offered by major political theorists. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

PSCI 5007 - Beyond Political Correctness

Explores and critiques "political correctness" defined as "ideological narrowing, intolerance and silencing of dissent." Analysis of origins, dynamics and consequences of PC with emphasis on its advantages and disadvantages for practitioners. Foundational works, illustrative cases and contemporary voices. **Semester Hours:** 3 to 3

PSCI 5008 - Graduate Topics in Political Science

Semester Hours: 1 to 3

PSCI 5009 - Politics of the Budgetary Process

Explores budgeting and financial management in the public and nonprofit sectors. An overview of public sector and nonprofit fiscal management is provided, along with thorough exploration of the political influences that affect financial decision-making. Note: Offered as a special topics course in an intensive three-weekend format, which is reflected in the syllabus. **Semester Hours:** 3 to 3

PSCI 5011 - GIS in Political Science

Computer lab course developing methodological skills in Geographic Information Systems (GIS) in political contexts. Geospatial computerized mapping skills are important in political fields such as urban planning, electoral analysis, environmental justice, demographics, public health, and criminal justice. Designed for beginners. Cross-listed with PSCI 4011. **Semester Hours:** 3 to 3

PSCI 5013 - Philosophical Problems in the Social Sciences

Explores the fundamentals of the conduct of inquiry; concept formation and theory construction in the social sciences; issues related to value judgments and objectivity, social praxis, human nature and political choice. Cross-listed with SSCI 5013. **Semester Hours:** 3 to 3

PSCI 5014 - Seminar: American Politics

Foundations of U.S. politics and contemporary political issues. Federal/state/community relations. Relationship among the three branches of the Federal government. Colorado controversies arising under the U.S. Constitution. Cross-listed with PSCI 4094. **Semester Hours:** 3 to 3

PSCI 5024 - State Politics: Focus on Colorado

Analysis of unique aspects of Colorado government and politics. Political comparison of Colorado with other states. Preparation and discussion of research papers. **Semester Hours:** 3 to 3

PSCI 5025 - Local Governance and Globalization

Introduces international political economy, consequences of globalization for localities, interplay between wealth and power among nations, multinational corporations, NGOs and the UN, and impact of their actions on local governments. Topics include development, aid, trade, outsourcing, eco-sustainability and global equity. Prereq: Graduate standing or permission of instructor. Cross-listed with PSCI 4025. **Semester Hours:** 3 to 3

PSCI 5044 - The Presidency

An overview of the historical, constitutional, and functional aspects of the presidency. Focuses on the powers and vulnerabilities of the presidency and on the style and politics of the current president. Prereq: Graduate status or permission of instructor. Cross-listed with PSCI 4044. **Semester Hours:** 3 to 3

PSCI 5054 - The Legislative Process

An intensive examination of the structures and interactions through which laws are made in the United States. The major emphasis is the national level, but considerable attention is devoted to state legislatures and local lawmaking bodies. Impact of money and interest groups. **Semester Hours:** 3 to 3

PSCI 5057 - Religion and Politics

Exploration of: (1) theoretical perspectives on the relationship between religion and politics; (2) causes of and justifications for the historical development of the Western separation of "church and state;" (3) contemporary responses to and analyses of this separation; and (4) several current debates about public policy in America that reveal tensions between these two spheres. Cross-listed with PSCI 4057, and RLST 4500, 5500. **Semester Hours:** 3 to 3

PSCI 5084 - Local Government and Administration

Policy and administrative challenges faced by local government in the 21st Century. Emphasis on cities under federalism, alternative forms of city governance, and new challenges from increasingly diverse constituents. Issues of poverty, public safety, health, transportation, environment, corruption and accountability. Cross-listed with PSCI 4084. **Semester Hours:** 3 to 3

PSCI 5085 - Comparative Public Policy

Comparison of public policy making in such areas as health care, environment, family assistance, and employment in the United States and at least two other countries. Prereq: Graduate standing or permission of instructor. Cross-listed with PSCI 4085. **Semester Hours:** 3 to 3

PSCI 5094 - Seminar: Urban Politics

An intensive analysis and research of major aspects of politics and government in metropolitan areas. Impact of corporations and higher levels of government on cities. Opportunities for, and barriers to, citizen participation. **Semester Hours:** 3 to 3

PSCI 5105 - Comparative Politics: Europe

Examination and writing of research papers on selected topics of industrial democracies, especially those of Europe. Cross-listed with PSCI 4105. **Semester Hours:** 3 to 3

PSCI 5135 - Seminar: Political Economy of Latin America

Focuses on the political economies and cultures of Latin America. Particular attention is given to the impact of the export-led growth strategy on social and political development. **Semester Hours:** 3 to 3

PSCI 5145 - Indigenous Politics

Surveys the status of the world's native peoples and nations, and the role of law and politics in the future of indigenous peoples in the global arena. Examines questions of human rights, economic development, and international law and politics. Prereq: Graduate status or permission of instructor. Cross-listed with PSCI 4146 and ETST 4146. **Semester Hours:** 3 to 3

PSCI 5206 - Social Movements, Democracy and Global Politics

Examines global social movements as new political actors within world politics; how theoretical perspectives in international relations and democracy address these actors; and the forms of interaction among these actors, states, and global governance institutions. Cross-listed with PSCI 4206. **Semester Hours:** 3 to 3

PSCI 5216 - Seminar: International Relations

Introduces contending theories, empirical studies, and research methods in the field. Writing and discussion of comprehensive research papers in the field of international power politics and alternative attempts at controlling conflicts among nations. **Semester Hours:** 3 to 3

PSCI 5224 - Dictatorships in 21st Century

Analyzes and classifies political systems of non-democratic regimes. Reviews earlier and contemporary theories that explain the origins, survival and death of authoritarian regimes. Discusses the impact of dictatorial rule on domestic developments as we **Semester Hours:** 3 to 3

PSCI 5225 - Democracy and Democratization

Examines the conditions under which countries turn from authoritarianism towards democracy and become stable democratic regimes. Also examines the impact of foreign and international factors on new democracies. Cross-listed with PSCI 4225. **Semester Hours:** 3 to 3

PSCI 5236 - Seminar: American Foreign Policy

Examines selected methodological and substantive problems. Particular emphasis on elements of national decision making, America's adaptation to the changing world, and opportunities for student contributions through research and discussion. **Semester Hours:** 3 to 3

PSCI 5238 - Seminar: Comparative Foreign Policy

Examination of the effects of leaders, groups, institutions, strategic cultures and external influences on national foreign policy-making processes and comparative analysis of foreign policy making of great and emerging powers. Prereq: graduate standing. **Semester Hours:** 3 to 3

PSCI 5245 - Gender, Globalization and Development

Analyzes the effects of globalization on the gendered processes of international development and strategies to empower women to achieve gender justice across race, class and national divisions. Cross-listed with PSCI 4248 and WGST 4248/5248. **Semester Hours:** 3 to 3

PSCI 5256 - Seminar: National Question and Self-Determination

Designed to provide students with a broad theoretical and empirical understanding of the causes of ethnic conflicts and to assess different strategies of conflict resolution. **Semester Hours:** 3 to 3

PSCI 5265 - Social Justice and Globalization

Examines issues of justice and ethical responsibility in a globalizing world. Do moral obligations of individuals and institutions end at national borders or do they encompass all human beings and extend to the environment and to future generations? Cross-listed with PSCI 4265. **Semester Hours:** 3 to 3

PSCI 5266 - International Law

Investigates the body of law that regulates relations between nations and provides a framework for solving common problems and disputes between nations. Prereq: Upper division political science major. Cross-listed with PSCI 4266. **Semester Hours:** 3 to 3

PSCI 5274 - Conflict Resolution and Public Consent Building

Alternative strategies for resolving or mediating conflicts facing public or nonprofit organizations and for building public consent, with emphasis on personal, interpersonal, organizational, interest-group, cross-cultural, and roots of conflict and bases for consent. Cross-listed with PSCI 4274. **Semester Hours:** 3 to 3

PSCI 5276 - Conflicts and Rights in International Law

Explores contending interpretations and practices in international law regarding issues such as the legitimacy of humanitarian intervention, efficacy of truth commissions, tensions between truth and justice in cases of genocide and war crimes, and legal changes needed to devise viable rules. Cross-listed with PSCI 4276. **Semester Hours:** 3 to 3

PSCI 5286 - International Relations: War or Peace?

Presents alternative theoretical frameworks for the explanation of war and peace. Investigations of the efficacy of international law, just-war norms and the UN in preventing or containing conflict. Prereq: Graduate status or permission of instructor. Cross-listed with PSCI 4286.

Semester Hours: 3 to 3

PSCI 5324 - Politics, Public Policy and Leadership

Role of politics in public and nonprofit sectors. Theories of administration and policy-making, emphasizing the role of leadership in public outcomes. Hands-on approach to case studies and use of students' policy experiences in practical application of theories. Cross-listed with PSCI 4324. **Semester Hours:** 3 to 3

PSCI 5326 - Advanced International Political Economy: Globalization

Engages the current debate about globalization. Conceptualizes globalization and evaluates the pros and cons of global trade and finance for developed and developing countries. Develops a model for a sustainable and just global economy. Cross-listed with PSCI 4326. **Semester**

Hours: 3 to 3

PSCI 5354 - Seminar: Environmental Politics and Policy

Consideration of competing models of the policy process in natural-resources decision making. Focus on selected case studies. Impact of environmental and pro-growth forces on the political process. **Semester Hours:** 3 to 3

PSCI 5374 - Public Priorities for the 21st Century

Identification of and planning for social, political, and economic trends in American society likely to transform governmental, nonprofit and private entities. Rigorous examination of and debate on competing priorities such as liberty, security, welfare, equality, diversity, growth and ecology. Cross-listed with PSCI 4374. **Semester Hours:** 3 to 3

PSCI 5414 - Organizational Change Agents

Explores of strategies for changing public and nonprofit organizations and of ways leadership abilities can be used for this purpose. Analysis of obstacles to organizational change and of methods for overcoming them. Principles of change applied to real-life contexts. Cross-listed with PSCI 4414. **Semester Hours:** 3 to 3

PSCI 5417 - Seminar: Practical Utopias

Explores of utopian theories applied in real-world experiments and political movements, including communes, worker cooperatives, neighborhood organizing and Green parties. One or

more field trips and a final retreat during which the class will develop its own practical-utopian model(s). **Semester Hours:** 3 to 3

PSCI 5446 - Advanced Indigenous Peoples' Politics

Builds upon the theoretical and applied foundations of PSCI 4146. Intensive study of international legal and political developments are examined, particularly in the United Nations and the Organization of American States systems. Prereq: PSCI 4144 or 4146 or permission of instructor. Cross-listed with PSCI 4446. **Semester Hours:** 3 to 3

PSCI 5457 - Seminar: American Political Thought

An intensive research in and presentation of competing ideas in the development of American political thought and practice, beginning with those of the Iroquois Confederacy and the founders of the United States Constitution. **Semester Hours:** 3 to 3

PSCI 5468 - Research Methods in Political Science

Analysis and evaluation of research methods, techniques, and empirical materials in political science application to Internet research. **Semester Hours:** 3 to 3

PSCI 5477 - The U.S. Constitution: Law and Politics

An intensive analysis of the most recent doctrinal developments in the areas of federal jurisdiction, federalism, separation of powers, commerce, taxing and war powers, civil liberties and civil rights. Prereq: PSCI 4477 or 4487 or permission of instructor. **Semester Hours:** 3 to 3

PSCI 5545 - Immigration Politics

Introduces students to central theories of migration and a survey of immigration law and policy in the 20th century. Highlights experiences of Mexican and Latin American immigrants and related topics, including U.S.-Mexican foreign relations, bilingual education, undocumented immigration and globalization. Cross-listed with PSCI 4545. **Semester Hours:** 3 to 3

PSCI 5555 - International Women's Resistance

Examines local and international struggles of women to build peace and justice by resisting systems of inequality such as colonialism, racism, patriarchy, globalization, and religious intolerance. Prereq: Graduate status or permission of instructor. Cross-listed with PSCI 4555, WGST 4555/5555 and ETST 4555. **Semester Hours:** 3 to 3

PSCI 5610 - Seminar: Middle East Politics

Examines the Middle East regional system and the region's role in world politics. Investigates questions regarding politics in Iran, Iraq, Palestinian-Israeli relations, political Islam, and relations with the United States. **Semester Hours:** 3 to 3

PSCI 5615 - Seminar: Chinese Development

Discussion of readings about China. Analysis of several of the following: party-government relations, ideology and political behavior, leadership, diplomacy, political and economic development and post-Mao reforms. **Semester Hours:** 3 to 3

PSCI 5644 - Ethical Responsibilities of Leaders

Explores concepts of ethical decision making within the context of public leadership in both the public and non-profit sectors. Universal and individual ethical standards are examined. Cross-listed with PSCI 4644. **Semester Hours:** 3 to 3

PSCI 5726 - Seminar on U.S. and China Relations

Detailed examination of historical context and current issues in U.S./China relations. Emphasis on post-1949 period, with particular attention to post-1978 relations and issues. Prereq: Graduate status or permission of instructor. **Semester Hours:** 3 to 3

PSCI 5747 - Legal Reasoning and Writing

Introduces the fundamentals of legal reasoning and legal argumentation through intensive class discussion, formal debate and writing. Attention is given to the relationship between case and statutory law and their application in trial and appeals courts in the United States. Cross-listed with PSCI 4757, COMM 4750, 5750. **Semester Hours:** 3 to 3

PSCI 5807 - Seminar: Conflict Behavior and the Politics of Violence

Theoretical and empirical analysis of conflict behavior with special emphasis on the explanation of political violence. Revolution, international warfare, and urban unrest are studied as forms of political violence, and the role of systematic empirical research is emphasized in the development of general theories of intergroup conflict. **Semester Hours:** 3 to 3

PSCI 5808 - Strategies of Peacebuilding

The course investigates the theories and strategies of peacebuilding in societies that have endured intrastate conflict and/or massive human rights violations and asks whether peace and justice and democracy can or should work together and how forgiveness a **Semester Hours:** 3 to 3

PSCI 5827 - Seminar: Political Psychology

Role of personality variables in political attitudes, behavior, and system maintenance and change; human nature as a parameter; political relevance of psychoanalytic, behaviorist, humanistic and social psychology; alienation, ethnocentrism, dogmatism, and aggression as political variables. Prereq: Political science or psychology background. **Semester Hours:** 3 to 3

PSCI 5837 - Contemporary Issues in Civil Liberties

Conflicting rights of individuals and groups in several areas of civil liberties, including religious groups, free speech, sexual freedom, racial quotas, and anti-governmental actions and publications. This course includes case law, readings, guest speakers and case discussions. Cross-listed with PSCI 4837. **Semester Hours:** 3 to 3

PSCI 5840 - Independent Study: PSCI

Semester Hours: 1 to 3

PSCI 5914 - Community Development

The theory and practice of community-sensitive development. Global forces challenge communities, alternatively, with floods and droughts of international capital. By collaborating with a non-profit community-based organization, this class examines how communities develop progressive methods of engaging global forces. Prereq: Graduate standing or permission of instructor. **Semester Hours:** 3 to 3

PSCI 5939 - Internship

Semester Hours: 1 to 6

PSCI 5950 - Master's Thesis

Semester Hours: 1 to 6

PSCI 5960 - Master's Project

Semester Hours: 1 to 3

PSCI 5995 - Travel Study

Students study various topics at an off-campus location, either a foreign country or another city or region in the United States, led by a Downtown Denver Campus instructor. Prereq: PSCI 1001 or 3022 or permission of instructor. Cross-listed with PSCI 4995. **Semester Hours:** 1 to 3

PSCI 6840 - Independent Study: PSCI

Semester Hours: 1 to 3

Psychology Courses (PSYC)

PSYC 1000 - Introduction to Psychology I

Introduces the scientific study of behavior, including an overview of the biological basis of behavior, sensation or perception, states of consciousness, learning and memory, thinking and language, intelligence, motivation and emotion. **Semester Hours:** 3 to 3

PSYC 1005 - Introduction to Psychology II

Introduces the scientific study of behavior, including an overview of the history of psychology, development, personality, psychological disorders, therapy, health psychology and social behavior. PSYC 1000 is not a prerequisite for this course. **Semester Hours:** 3 to 3

PSYC 1111 - Freshman Seminar

Semester Hours: 1 to 3

PSYC 2050 - Improving Memory

Applies psychological principles of memory function and process to everyday settings and experiences. Covers topics such as how memory works, principles of memory improvement, and strategies for effective learning. **Semester Hours:** 2 to 2

PSYC 2060 - Psychology Applied to Everyday Life

A primer in psychological principles applied to everyday situations. Covers topics such as learning, stress and health, attraction and love, and personality. **Semester Hours:** 3 to 3

PSYC 2090 - Statistics and Research Methods

Introduces statistics and research methods in the field of psychology. Note: Intended for those who plan to major in psychology. Completion of college algebra or equivalent is recommended. Prereq: PSYC 1000. **Semester Hours:** 4 to 4

PSYC 2220 - Biological Basis of Behavior

Introduces the biological basis of behavior. This course will feature concepts like neurons, synaptic and hormonal transmission, and physiological set-points. Behavior of simple (invertebrate) and complex organisms (vertebrates) will be related to the activity of specific brain neural networks. Prereq: PSYC 1000 or BIOL 2051. **Semester Hours:** 3 to 3

PSYC 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 1 to 3

PSYC 2990 - Topics in Psychology

Studies special topics to be selected by the instructor. Note: May be repeated for credit. **Semester Hours:** 1 to 3

PSYC 3090 - Research Methods in Psychology

Covers principles of experimental methodology in Psychology. Includes active participation in data collection and interpretation, presentation of results, evaluation of scientific literature, scientific writing and advanced statistical concepts as they relate to the field of Psychology.

Prereq: PSYC 1000, 1005 and 2090. **Semester Hours:** 3 to 3

PSYC 3104 - Behavioral Genetics

Interdisciplinary course on relationships between behavior and heredity, with emphasis on human behavioral genetics. Prereq: General biology or general psychology. Cross-listed with BIOL 3104. **Semester Hours:** 3 to 3

PSYC 3145 - Industrial and Organizational Psychology

Surveys the fields of industrial and organizational psychology. These fields apply psychological principles to improving productivity and satisfaction in the workplace. Topics include motivation, leadership, group processes, team functioning, occupational health, selection and training of employees, and performance management. Prereq: PSYC 1000, 1005, and 2090 or permission of instructor. **Semester Hours:** 3 to 3

PSYC 3205 - Human Development I: Child Psychology

Studies human development covering birth, infancy, toddler, preschool and school-aged child. Covers biological, cognitive and social processes. Prereq: PSYC 1000 or 1005. **Semester Hours:** 3 to 3

PSYC 3215 - Human Development II: Adolescence and Adulthood

Study of human development from adolescence through adulthood and aging. Covers biological, cognitive, and social processes. Prereq: PSYC 1000 or 1005. **Semester Hours:** 3 to 3

PSYC 3222 - Principles of Learning and Behavior

Introduces the scientific study of learning and behavior, focusing on "Behaviorism." Principles of operant and classical conditioning are discussed. A particular emphasis is placed on the relevance and application of these principles to understanding human behavior and psychopathology. Prereq: PSYC 1000. **Semester Hours:** 3 to 3

PSYC 3235 - Human Sexuality

Examines the physiological, psychological, and social psychological bases of human sexuality. Research on the range of sexual behaviors, individual sexual response, sexual development, sexual dysfunction, and variants of sexual orientation. Prereq: PSYC 1000, 1005 and 2090, or permission of instructor. **Semester Hours:** 3 to 3

PSYC 3254 - Introduction to Animal Behavior

Surveys the behavior of nonhuman animals, emphasizing the evolution through natural selection. Prereq: One semester of general biology, biological anthropology, or other course emphasizing evolutionary perspective. **Semester Hours:** 3 to 3

PSYC 3262 - Health Psychology

An overview of the scientific study of attitudes, behaviors, and personality variables related to health and illness. Emphasis is on the interaction of biological, psychological, and social factors that cause illness and influence its treatment and prevention. Prereq: PSYC 1000, 2090 and 2220 or permission of instructor. **Semester Hours:** 3 to 3

PSYC 3263 - Hormones and Behavior

The hormonal regulation of behavior will be the primary focus of this course. Topics include: hormonal basis of sexual differentiation and behavioral differences, parental behavior, biological rhythms, aggression, mood and stress. Prereq: PSYC 1000, 2090 and 2220 or permission of instructor. **Semester Hours:** 3 to 3

PSYC 3265 - Drugs, Brain and Behavior

Explores the pharmacological, biological, and behavioral basis of drug effects. Topics include mechanisms of drug action, brain reward pathways, role of environment and history on drug effects, and the impact of science on drug abuse and medication development. Prereq: PSYC 1000, 2090 and 2220 or permission of instructor. **Semester Hours:** 3 to 3

PSYC 3305 - Abnormal Psychology

Borderline disorders as extreme variations of the normal personality. Major functional and organic disorders. Theories of mental disorders and methods of psychotherapy. Prereq: PSYC 1000. **Semester Hours:** 3 to 3

PSYC 3405 - Family Psychology

Overview of theory and research pertaining to marital and family structure, functioning and dynamics. Prereq: PSYC 1005. **Semester Hours:** 3 to 3

PSYC 3505 - Psychology and the Law

Examines the legal and extralegal applications of psychology, such as assessment of insanity and competence, psychologists as expert witnesses, accuracy of eyewitness accounts, and issues relating to employment discrimination. Prereq: PSYC 1000, 1005, and 2090 or permission of instructor. **Semester Hours:** 3 to 3

PSYC 3600 - Topics in Psychology

Studies special topics to be selected by the instructor. Note: May be repeated for credit. **Semester Hours:** 1 to 3

PSYC 3610 - Psychological Trauma

Overview of psychological trauma, including: history, theoretical application, trauma models, diagnosis and treatment implications. Topics include family violence, child abuse, sexual abuse, and the trauma of war. Prereq: PSYC 1000, 1005 and 2090 or permission of instructor. **Semester Hours:** 3 to 3

PSYC 3611 - Psychology of Women

Reviews psychological theories and research of women's social, cultural, emotional and behavioral experience. Examines the sociocultural context of women's experience and explores women's socialization, developmental issues, cognitive abilities and achievement motivation, personality variables, stereotypes, psychological disorders, victimization, intimacy and sexuality.

Prereq: PSYC 1000, 1005 and 2090 or permission of instructor. **Semester Hours:** 3 to 3

PSYC 3612 - Domestic Abuse

Examines the nature and extent of domestic violence. Personal characteristics and dynamics that contribute to spouse abuse are reviewed. Theories and research in the general field of family violence, victims' and perpetrators' treatment, and child abuse are discussed. Prereq: PSYC

1000, 1005 and 2090 or permission of instructor. **Semester Hours:** 3 to 3

PSYC 3724 - Developmental Psychobiology

Explores the biological influences on the development of brain and behavior. Emphasis is on the evolution and development, the role of experience in prenatal and postnatal development, the ontogeny of sensory systems, learning and memory, and the biological bases of language acquisition. Prereq: PSYC 1000/1005 or BIOL 2051/2061. **Semester Hours:** 3 to 3

PSYC 3810 - Neuropsychology

Brain organization and function and its relationship to human memory, language, perception, and other cognitive abilities. Covers the application of clinical neuropsychology to working with individuals that have neurological disorders. Prereq: PSYC 1000 and 2220 or permission of instructor. **Semester Hours:** 3 to 3

PSYC 3822 - Aging, Brain and Behavior

Examines the aging process, behavioral changes during senescence and the accompanying changes in the aged brain. Changes that are part of healthy aging are studied, as will age-related brain disorders. Prereq: PSYC 1000, 2090 and 2220 or permission of instructor. **Semester Hours:** 3 to 3

PSYC 3832 - Neural Basis of Learning

Survey of advances in neuroscience that further the understanding of how neurons within our brains are modified by experience and thus influence subsequent behavior. Includes discussions of how these mechanisms contribute to various psychopathologies. Prereq: PSYC 1000, 2090, and 2220. **Semester Hours:** 3 to 3

PSYC 3939 - Internship

Designed experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Junior standing, completion of minimum of 12 hours in psychology with minimum grade of 'C.' **Semester Hours:** 1 to 3

PSYC 4054 - Behavioral Neuroscience

The morphological, neurochemical and physiological bases of behavior. Emphasis is on structure and function of the brain. Prereq: PSYC 1000, 2090 and 2220 or permission of instructor. **Semester Hours:** 3 to 3

PSYC 4090 - Research Design and Development

This advanced writing and research methods course is designed to help students develop independent research ideas in Psychology into formal proposals and products, such as a thesis proposal, grant application, presentation and study protocol. Prereq: PSYC 4054. **Semester Hours:** 3 to 3

PSYC 4101 - Applied Statistics Using SAS and SPSS I

Teaches the practical statistical tools social scientists use to analyze real-world problems. It is split into four modules, each taught by a different instructor. The first module introduces SAS and SPSS; modules 2-4 are problem-based and cover topics such as ANOVA, multivariate regression, and cluster analysis. Prereq: Any statistics course. **Semester Hours:** 3 to 3

PSYC 4102 - Applied Statistics Using SAS and SPSS II

Students use the skills they learned in the previous semester to analyze a social issue of their choosing and present their findings. Note: A continuation of PSYC 4101. In addition to lectures, weekly one-on-one meetings between faculty and students are required. Prereq: PSYC 4101.

Semester Hours: 3 to 3

PSYC 4144 - Human Cognition

Studies information processing in humans, with emphasis on memory, thinking and language. Prereq: PSYC 1000. **Semester Hours:** 3 to 3

PSYC 4164 - Psychology of Perception

Studies sensory processes and perceptual variables. Covers processes related to vision, audition, gustation and olfaction. Prereq: PSYC 1000, 2090 and 2220 or permission of instructor.

Semester Hours: 3 to 3

PSYC 4415 - Experimental Social Psychology

Surveys the field of Social Psychology, the study of the way in which cognitions, emotions, and behaviors are influenced by the presence, or perceived presence, of others. Heavily focuses on experimentation and experimental methods within the field of Social Psychology. Prereq: PSYC 1000, PSYC 1005, and PSYC 2090. **Semester Hours:** 3 to 3

PSYC 4455 - Theories of Personality

An in-depth look at several major theories of personality, including those from psychodynamic, behavioral, and humanistic schools of thought. Students are required to think actively and abstractly, and communicate their ideas in papers and classroom contributions. Prereq: PSYC 1000, 1005 and 2090 or permission of instructor. **Semester Hours:** 3 to 3

PSYC 4485 - Psychology of Cultural Diversity

Studies diversity in the development of the individual across Asian, Black, Hispanic, and Native American cultures. The experience of self, role of the family, expression of emotions, and psychology of prejudice are emphasized. Prereq: Six semester hours of psychology, sociology, and/or anthropology in any combination. **Semester Hours:** 3 to 3

PSYC 4500 - Psychotherapy

Overview of the major systems of psychotherapy, including psychoanalysis, person-centered therapy, family therapy, cognitive or behavioral approaches, and relationships among the various approaches. Prereq: 12 hours in psychology, including PSYC 1005 and 2090. **Semester Hours:** 3 to 3

PSYC 4511 - History of Psychology

Development of psychological theories since 500 B.C. Schools of psychology and their adherents. Readings of primary and secondary sources. Prereq: PSYC 1000 and 1005 plus 6 additional credit hours in psychology (12 hours total). **Semester Hours:** 3 to 3

PSYC 4730 - Clinical Psychology: Ethics and Issues

An in-depth exploration of the values and ideas that guide professional practice in psychology, including professional codes of conduct and philosophical ethical principles. Topics include confidentiality, informed consent, competence, integrity and respect. Prereq: 12 hours in psychology, including PSYC 1005 and 2090. **Semester Hours:** 3 to 3

PSYC 4803 - Principles of Psychological Testing

Principles underlying construction, validation, and use of tests of ability, intelligence, and personality and of attitude surveys. Covers statistical topics such as content and construct validity, item analysis, and reliability analysis. Prereq: A prior course in statistics. Cross-listed with PSYC 5803. **Semester Hours:** 3 to 3

PSYC 4840 - Independent Study: PSYC

Prereq: Permission of instructor. **Semester Hours:** 1 to 3

PSYC 4939 - Internship

Semester Hours: 1 to 3

PSYC 4990 - Topics in Psychology

Advanced study of special topics to be selected by the instructor. May be repeated for credit. Prereq: Permission of instructor. Cross-listed with PSYC 5990. **Semester Hours:** 1 to 3

PSYC 5803 - Principles of Psychological Testing

Principles underlying construction, validation, and use of tests of ability, intelligence, and personality and of attitude surveys. Covers statistical topics such as content and construct validity, item analysis, and reliability analysis. Prereq: Admission to psychology graduate program. Cross-listed with PSYC 4803. **Semester Hours:** 3 to 3

PSYC 5840 - Independent Study: PSYC

Semester Hours: 1 to 3

PSYC 5939 - Internship

Semester Hours: 1 to 6

PSYC 5990 - Topics in Psychology

Advanced study of special topics to be selected by the instructor. Note: May be repeated for credit. Prereq: Permission of instructor. Cross-listed with PSYC 4990. **Semester Hours:** 1 to 3

PSYC 6200 - Developmental Psychopathology

The study and prediction of maladaptive behaviors and processes across time. Students develop a sophisticated understanding of important concepts related to emotional and behavioral problems in children and adolescents, including DSM-IV-TR diagnostic criteria and the basic tenets of successful intervention. Prereq: Admission to the Psychology MA, Clinical program or the Clinical Health Psychology Ph.D. program or with permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 6840 - Independent Study

A structured experience, planned and implemented with the assistance of a sponsoring faculty member in ongoing programs of research or other scholarly activity. Prereq: Admission to the graduate program in psychology. **Semester Hours:** 1 to 3

PSYC 6841 - Independent Study: PSYC

Semester Hours: 1 to 3

PSYC 6910 - Research Practicum

Semester Hours: 3 to 3

PSYC 6930 - Clinical Internship

Clinical experience in a setting which provides supervision by qualified professionals. Students participate in assessment, intervention, and/or evaluation and research. Prereq: Completion of 24 hours of course work in the UCD Psychology MA, Clinical program. **Semester Hours:** 1 to 6

PSYC 6950 - Master's Thesis

Semester Hours: 1 to 6

PSYC 7144 - Advanced Cognition and Emotion

Overview of contemporary psychological theories and research in human learning, memory, cognition, and emotion. Emphasis on cognitive and affective neuroscience and the physiological-psychological organization of functional systems. Prereq: Admission to the Clinical Health Psychology Ph.D. Program or with permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 7205 - Advanced Developmental Psychology

A survey of neurobiological, cognitive, social and cultural processes in human development from conception through adulthood. Prereq: Admission to the Psychology MA, Clinical program or Clinical Health Psychology Ph.D. program or with permission of instructor and a graduate program director. **Semester Hours:** 3 to 3

PSYC 7220 - Advanced Biological Bases of Behavior

Survey course of advances in psychobiology which inform our understanding of the brain and behavior with special emphasis on perception, action, and cognition. A major goal of the course is to foster appreciation of the importance of interdisciplinary research. Prereq: Admission to the Clinical Health Psychology PhD program or permission of instructor. **Semester Hours:** 3 to 3

PSYC 7262 - Health Psychology I

Part I of a 2-course sequence. Presents crucial aspects of health psychology and behavioral medicine, including theoretical models, anatomy and physiology epidemiology, health promotion and primary prevention of medical problems. Prereq: Admission to the Clinical Health Psychology Ph.D. Program or with permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 7350 - Psychotherapy I

Surveys some of the major schools of psychotherapy, including cognitive and cognitive-behavioral therapies as well as motivational interviewing. Coverage also includes therapy techniques, process of therapy, and treatment-outcome research. Prereq: Admission to the Psychology MA, Clinical program or the Clinical Health Psychology Ph.D. program or with permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 7360 - Psychotherapy II

Theoretical approaches and techniques used in research, assessment and treatment of major forms of psychopathology, including anxiety, depression, schizophrenia and substance abuse, as well as marital problems and childhood disorders. Prereq: Admission to the Clinical Health Psychology Ph.D. Program or with permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 7400 - Child Assessment

Psychometric theory and practice in assessment of children with focus on the diagnostics, the WISC-III, and personality assessment. Prereq: Admission to the Clinical Health Psychology Ph.D. program or with permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 7410 - Personality Assessment

Reviews the process of selection, evaluation, administration, utilization, and interpretation of psychological tests related to psychosocial functioning. Issues of validity, reliability, utility, clinical judgement, ethics, and cross-cultural competence are reviewed. Prereq: Admission to

the Clinical Health Psychology Ph.D. program, Clinical Psychology MA program, or by permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 7420 - Cognitive Assessment

Reviews the process of selection, evaluation, administration, utilization, and interpretation of psychological tests related to cognitive functioning. Issues of validity, reliability, utility, clinical judgement, ethics, and cross-cultural competence are reviewed. Prereq: Admission to the Clinical Health Psychology Ph.D. program, Clinical Psychology MA program, or by permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 7485 - Diversity in Clinical Psychology

Designed to foster understanding of diversity and its implications for clinical practice, research, and mental health policy. Students will learn to orient to the worldviews of clients from diverse backgrounds and to tailor their interventions to competently serve individuals in a pluralistic society. Prereq: Admission to the Clinical Health Psychology Ph.D. program or with permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 7490 - Topics in Health Psychology Summer Lecture Series

Weekly lectures given by Clinical Health Psychology department faculty, advanced graduate students, alumni and area professionals on selected topics in the field. Note: This course is required for first, second and third-year graduate students. Prereq: Ad **Semester Hours:** 1 to 1

PSYC 7500 - Advanced Psychopathology

Key features of major mental disorders in adult populations. Includes classification, DSM diagnosis, epidemiology, course and prognosis, age/culture/gender features, etiology and biological bases. Prereq: Admission to Psychology MA, Clinical program or the Clinical Health Psychology Ph.D. program or with permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 7511 - Historical and Philosophical Foundations of Psychology

Philosophical and historical antecedents to contemporary psychology, with particular emphasis on clinical psychology. Prereq: Admission to the Clinical Health Psychology Ph.D. Program or with permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 7520 - Experimental Psychopathology

Theories of etiology of major psychopathologies, including: personality disorders, anxiety disorders, affective disorders, substance use disorders and schizophrenia and other psychoses. Prereq: Admission to the Clinical Health Psychology Ph.D. program or with permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 7700 - Clinical Research Methods

Principles of research methodology in clinical psychology. Major topics include research ethics, subject recruitment, ethnic and cultural considerations, selecting and evaluating research measures, epidemiology and comorbidity, taxonomic and outcome research and research design. Prereq: Admission to the Psychology MA, Clinical program or the Clinical Health

Psychology Ph.D. program or with permission of instructor and graduate program director.

Semester Hours: 3 to 3

PSYC 7710 - Multivariate Statistics

Topics include multiple regression, logistic regression, factor analysis, and structural equation modeling. Both experimental and non-experimental designs will be considered. Students will learn underlying theory of these techniques as well as how to perf **Semester Hours:** 3 to 3

PSYC 7713 - Advanced Statistics

Experimental design and analysis of controlled interventions and evaluations. Emphasis on multifactor analysis of variance, orthogonal contrasts, post-hoc tests, multiple regression, and analysis of co-variance. Prereq: Admission to the Psychology MA, Clinical program or the Clinical Health Psychology Ph.D. program or with permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 7730 - Ethics and Professional Issues in Psychology

An in-depth exploration of the values and ethical ideas that guide professional practice in psychology, including philosophical ethical principles and professional codes of conduct. Specific topics include confidentiality, informed consent, competence, and respect for persons. Students are expected to be able to think about and communicate difficult ethical concepts in the form of class participation and a major paper. Prereq: Admission to the Psychology MA, Clinical program or the Clinical Health Psychology Ph.D. program or with permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 7830 - Clinical Interviewing

Students practice interviewing and develop skills, including the ability to listen actively, to critique their own work and the work of others, and to think carefully about issues that arise in clinical work with clients. Prereq: Admission to the Psychology MA, Clinical program or the Clinical Health Psychology Ph.D. program or with permission of instructor and graduate program director. **Semester Hours:** 1 to 3

PSYC 7910 - Clinical Practicum

Clinical experience under supervision of licensed, doctoral-level professionals. Students participate in assessment, intervention, and/or evaluation and research in a variety of settings. Note: All field placements must be approved by the Director of Clinical Training (DCT) in advance of registration. Prereq: Completion of 24 hours of course work in the UCD Clinical Health Psychology PhD program. **Semester Hours:** 1 to 6

PSYC 8100 - Clinical Behavioral Medicine

Presents basic assessment and psychotherapeutic techniques used for patients with various disorders, focusing on cognitive-behavioral methods and the unique needs of patients experiencing chronic disease. Prereq: Admission to the Clinical Health Psychology Ph.D. Program or with permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 8200 - Teaching Skills Workshop

Students will learn, explore, and practice the basic principles and strategies of good teaching. We will also explore research and theory for teaching at the college level. Prereq: Admission to the Clinical Health Psychology Ph.D. program or with permission of instructor(s). **Semester Hours:** 3 to 3

PSYC 8262 - Health Psychology II

Part II of a 2-course sequence. Further aspects of health psychology and behavioral medicine, including health service utilization, patient-provider relationships, social support, terminal illness and issues related to chronic disease states. Prereq: Admission to the Clinical Health Psychology Ph.D. Program or with permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 8501 - Primary Care Psychology

Examines emerging trends in the role of professional psychology and psychologists serving as health care providers in primary care medical settings. Knowledge, skills and attitudes as they apply to competencies unique to primary care will be covered. Prereq: Admission to the Clinical Health Psychology Ph.D. program or with permission of instructor and graduate program director. Students must also have completed PSYC 7262, 8262, and 7730, or equivalent courses. **Semester Hours:** 3 to 3

PSYC 8502 - Cardiovascular Health Psychology

The course focuses on research and clinical practice regarding psychological factors related to cardiovascular functioning and disease. The physiology of the cardiovascular system will be presented and primary and secondary prevention as related to psychological functioning will be emphasized. Prereq: Admission to the Clinical Health Psychology PhD program or with permission of instructor and graduate program director. **Semester Hours:** 3 to 3

PSYC 8503 - Group Interventions in Health Psychology

The course will serve as an introduction to group psychotherapy and group process principles with a focus on the design, implementation and delivery of evidence-based group interventions in the field of Clinical Health Psychology. **Semester Hours:** 3 to 3

PSYC 8550 - Advanced Social Psychology

This is a graduate level seminar that broadly covers the social bases of behavior from a social psychological perspective. It includes discussion of topics such as group processes, attribution theory, discrimination, and perspectives on attitudes. Prereq: Admission to the Clinical Health Psychology Ph.D. program or with permission of instructor. **Semester Hours:** 3 to 3

PSYC 8910 - Clinical Health Practicum

Advanced clinical experience under supervision of licensed, doctoral-level professionals. Students participate in assessment, intervention, and/or evaluation and research in a variety of health care settings to address the interface between physical and psychological functioning. Note: All field placements must be approved by the Director of Clinical Training (DCT) in advance of registration. Prereq: PSYC 7930. **Semester Hours:** 1 to 6

PSYC 8938 - Pre-Doctoral Internship

Intensive full-time clinical experience with supervision by licensed, doctoral-level professionals. Interns participate in assessment, intervention, and/or evaluation and research in a variety of settings. Students apply through the Association of Psychology Postdoctoral and Internship Centers (APPIC) national matching process. Note: All field placements must be approved by the Director of Clinical Training (DCT) in advance of registration. Prereq: Successful defense of the dissertation proposal in Clinical Health Psychology. **Semester Hours:** 1 to 3

PSYC 8990 - Doctoral Dissertation

Independent research on the doctoral dissertation in Clinical Health Psychology. Prereq: Admission to the Clinical Health Psychology Ph.D. Program. **Semester Hours:** 1 to 10

Public Administration Courses (PUAD)

PUAD 1001 - Introduction to Leadership and Public Service

This course provides a broad introduction to public service and encourages exploration of personal values and interests related to leadership, community, and life choices. Multiple paths to advancing the public good are explored, including volunteerism, citizenship, and service in government and nonprofits. **Semester Hours:** 3 to 3

PUAD 5001 - Introduction to Public Administration and Public Service

Examines the fundamental theories, structures, and processes of governance in the United States. Explores the constitutional foundations and functions of legislative, administrative, and legal institutions. Covers topics such as federalism, public-private relations, and comparative public administration. **Semester Hours:** 3 to 3

PUAD 5002 - Organizational Management and Behavior

This course provides coverage of those elements which, when combined, create a resilient learning organization. Topics include, but are not limited to, organization theory and design, managing human capital, group development and performance, inter- and intra-group communication, information management, and ethical decision making. These topics are presented within the framework of how to organize people to enhance the delivery of public services. **Semester Hours:** 3 to 3

PUAD 5003 - Research and Analytic Methods

Examines quantitative research methods used to answer questions and test hypotheses in public and non-profit settings. Methods covered include identifying and reviewing scholarly literature; formulating research questions; selecting appropriate design, data collection and sampling strategies; and analyzing data. Topics include causal and descriptive designs, interview and survey methods, and descriptive and inferential statistics such as chi square and regression. **Semester Hours:** 3 to 3

PUAD 5004 - Economics and Public Finance

Analyzes the impact of public policy on allocation of resources & distribution of income in the economy. Course explores 5 broad topics: 1) welfare & microeconomics 2) expenditure theory 3) resource mobilization (emphasis on taxation) 4) fiscal federalism **Semester Hours:** 3 to 3

PUAD 5005 - The Policy Process and Democracy

Provides an introduction to theoretical and applied studies of the policy process. The policy process includes the manner in which (I) issues are conceptualized and brought to the government as problems needing action; (II) policies are designed and selected; and (III) the enacted policies are implemented, monitored, evaluated, and revised. The policy process also includes the study of politics, especially how government and non-government actors interact and exercise power in allocating societal benefits and burdens. **Semester Hours:** 3 to 3

PUAD 5006 - Leadership and Professional Ethics

Examines theories of leadership applied to the public and non-profit sectors and the skills and processes employed by effective leaders. The course also considers ethical theories as applied to problems in the public and non-profit sectors; emphasizes critical thinking to address value conflicts, notably in the context of a pluralistic society; and teaches moral reasoning as a practical professional skill. **Semester Hours:** 3 to 3

PUAD 5010 - Rocky Mountain Program

This program encourages participants to examine their public sector roles, develop an understanding of their leadership styles, develop communication skills, and enhance their ability to think more systematically and strategically in their positions. **Semester Hours:** 3 to 3

PUAD 5030 - Denver Community Leadership Forum

Designed to increase cross sector cooperation and enhance personal leadership skills and knowledge, program is administered annually February to November. Students gain skills in conflict management, participate in Outward Bound program in July, and learn leadership theories and concepts from a variety of presenters and trainers. **Semester Hours:** 3 to 3

PUAD 5110 - Seminar in Nonprofit Management

This course provides an overview of the principles and concepts that are unique to nonprofit management. Topics include executive management, funding diversity, human resource management, marketing, volunteer management and ethics. Students are also given an introduction to the history and the importance of the nonprofit sector. Cross-listed with PUAD 7110. **Semester Hours:** 3 to 3

PUAD 5115 - Effective Grant Writing for Nonprofit and Public Sector Managers

This course is designed to provide students with the knowledge and skills to perform one of the most critical functions for any public or nonprofit sector agency today: gaining funds through proposals. Students learn how to locate and analyze funding opportunities through public and private funders and how to research, plan and write effective and competitive proposals. The course provides theoretical and practical knowledge about persuasive writing, the proposal submission and review process, building effective relationships with funders and how to proceed after post-funding decisions (positive or negative). Cross-listed with PUAD 7115. **Semester Hours:** 3 to 3

PUAD 5120 - Nonprofits and Public Policy

Examines the intersection of public policy and the nonprofit world and the ways in which each affects the other. The course examines current policy issues that relate to the nonprofit sector such as conversion of nonprofit to for-profit status, regulation of the nonprofit sector, issues of financial management, the role of nonprofits in devolution and privatization of government services, tax exemptions, "charitable choice," donor control, governance and the future of the future of the sector. The course examines the ways nonprofits have affected the policy process and public policies by exploring the factors that shape social movements, nonprofit advocacy,

strategies of influence, and the role of nonprofits in social movements such as Civil Rights and the environment. Cross-listed with PUAD 7120. **Semester Hours:** 3 to 3

PUAD 5125 - Civil Society and Nongovernmental Organizations

This course is designed for students interested in the international nonprofit sector. The course compares non-Western forms of civil society with the American tradition of civil society. Students will learn about the efforts of Nongovernmental Organizations (NGOs) working in Third World countries to influence democracy, free association, and/or increased political and societal pluralism. Additionally, the course will focus on NGO management and governance issues in countries where there are strict controls and limits on the activities of NGOs. Cross-listed with PUAD 7125. **Semester Hours:** 3 to 3

PUAD 5130 - Collaboration Across Sectors

The blurring of the three economic sectors - government, business and nonprofits-- continues to increase as more partnerships are developed across sectors. This course focuses on collaboration and partnerships involving public, nonprofit and for-profit organizations. Additionally, students are expected to gain an understanding of the issues and policies associated with the bidding, contracting, program delivery and reporting processes when nonprofit organizations are contracted to achieve public sector goals and/or private sector objectives. Cross-listed with PUAD 7130. **Semester Hours:** 3 to 3

PUAD 5140 - Nonprofit Financial Management

Financial management is one of the core competencies of effective nonprofit managers. Every nonprofit organization needs money to sustain or advance its mission. This course provides a grounding in financial management for the "non-accountant" by focusing on an array of knowledge and management skill areas necessary for allocating and controlling resources and for analyzing, reporting and protecting the fiscal health of the organization. Topics include key accounting principles, understanding and using financial statements, the budget development process, cash flow analysis, banking relationships, using the audit report, maximizing investment policy and strategy, and understanding the boundaries of tax exemption. Cross-listed with PUAD 7140. **Semester Hours:** 3 to 3

PUAD 5150 - Fundraising & Financial Resource Development

Designed to provide a comprehensive overview of funding sources available to nonprofit organizations (e.g., foundation and governmental grants, individual and corporate donations, entrepreneurial sources of revenue and events.), as well as detailed inform **Semester Hours:** 3 to 3

PUAD 5160 - Nonprofit Boards and Executive Leadership

The important roles and responsibilities of a voluntary board of directors and the process of governing are often misunderstood. This course explores the special powers of a nonprofit board of directors as framed by and responsive to public policy. From the perspective of organizational behavior and theory, the course examines the leadership role and interplay between board members and the executive director. The examination includes a comparative analysis of different governing models, and explores fundamental questions of board composition, the role

of advisor boards, achieving effective board meetings, the realm of liability, using committees, and the board's role in fundraising, among other special subject matter. Cross-listed with PUAD 7160. **Semester Hours:** 3 to 3

PUAD 5170 - Strategic Management for Nonprofit and Public Managers

Designed to train public and nonprofit managers in the effective use of strategic management tools and techniques traditionally used by corporations. Strategic management tools and skills, although traditionally used by business, should not be seen as the exclusive domain of corporations. The course teaches students how to adapt traditional strategic management capabilities to the particular conditions of public and nonprofit organizations. Cross-listed with PUAD 7170. **Semester Hours:** 3 to 3

PUAD 5180 - Social Entrepreneurship

Designed to introduce students to the concept of social entrepreneurship. Using nonprofit (and public) organizational examples, students gain an understanding of what it means to be an innovative manager. Students study techniques designed to advance an organization's mission and increase organizational effectiveness, accountability and efficiency through the use of for-profit techniques within a nonprofit context. Cross-listed with PUAD 7180. **Semester Hours:** 3 to 3

PUAD 5220 - Human Resource Management

Covers human resource functions in public and nonprofit agencies. Topics include job analysis, compensation, recruiting, selection, rewarding, training and development. Contemporary issues concerning civil service reforms are also presented. Prereq: PUAD 5002 or PUAD 7002. Cross-listed with PUAD 7220. **Semester Hours:** 3 to 3

PUAD 5250 - Intergovernmental Management

Surveys the basic literature of intergovernmental management and examines the interactive role of managers at federal, state, and local levels of government. Emphasis is placed on current intergovernmental issues. Cross-listed with PUAD 7250. **Semester Hours:** 3 to 3

PUAD 5260 - Managing in a Multicultural Society

Using a systems approach, diversity within organizations is examined through the construction and review of theories in private, public, and nonprofit organizations. Existing models of managing diversity are examined and analyzed. Cross-listed with PUAD 7260. **Semester Hours:** 3 to 3

PUAD 5271 - Managing Conflict and Change

Explores the process of change in organizations, communities, society, and conflicts that arise. Through the use of relevant case studies and role playing exercises, students are provided a practical framework for looking at change and managing conflict associated with change. Cross-listed with PUAD 7271. **Semester Hours:** 3 to 3

PUAD 5280 - American Public Service Environment

Designed for SPA international students, especially those in their first or second semester, students will compare US culture and its public and nonprofit organizations (NGOs) with those in their home countries. Class sessions include: site visits; guest speakers from public and nonprofit organizations; case studies, with an emphasis on applying theory to current issues in public policy and management. **Semester Hours:** 3 to 3

PUAD 5310 - Policy Formulation & Implementation

Building on PUAD 5005, students learn how policy is developed and implemented in several levels of government - local, state, federal - and within organizations themselves. The course makes use of the case studies to explore the intricacies of developing and implementing policy and the political, economic, and institutional contexts that affect these two states of policy development. Students also consider the different criteria that can be used to judge the effectiveness of programs and policies. Prereq: PUAD 5005 or 7005. Cross-listed with PUAD 7310. **Semester Hours:** 3 to 3

PUAD 5320 - Public Policy Analysis

Provides training in the systematic analysis of policy and program initiatives using an economics orientation and employing a case method. The course covers benefit-cost analysis, cost-effectiveness analysis, present values, and the treatment of multiple criteria in public sector program analysis. Prereq: PUAD 5003/7003, 5004/7004 and 5005/7005. Cross-listed with PUAD 7320. **Semester Hours:** 3 to 3

PUAD 5330 - Intermediate Statistical Analysis

Follows PUAD 5003/7003 and is focused on more advanced statistical techniques to be used in research. These techniques include the use of regression in time series analysis; binary response; nonlinear, logistic, and profit models; and factor and path analysis. Evaluating potential problems with model specification and the remedies are included. Students are required to test hypotheses using these models with a data set. Prereq: PUAD 5003 or 7003. Cross-listed with PUAD 7330. **Semester Hours:** 3 to 3

PUAD 5350 - Program Evaluation

Describes the theory and methodology for the design of social research and demonstration projects and the application of analytic and statistical methods for evaluating public programs. Focus is on the application of evaluation methods and techniques of data interpretation. Report preparation is emphasized. Prereq: PUAD 5003 or PUAD 7003 and PUAD 5005 or PUAD 7005. Cross-listed with PUAD 7350. **Semester Hours:** 3 to 3

PUAD 5361 - Capstone Seminar

In this seminar, students demonstrate their mastery of the knowledge and skills acquired in core courses, through the conduct of a client-based project. Students in a concentration must undertake a project related to that concentration. Students also make a juried oral presentation of the professional paper which reports project findings. This is the cumulative opportunity for students to apply concepts, theories, and research skills gained in the program to professional

practice. (Successful completion of this course is an M.P.A. degree program requirement.)
Cross-listed with PUAD 7361. **Semester Hours:** 3 to 3

PUAD 5370 - Media and Public Policy

Explores the conventions and practices of the print and electronic media in the United States. The course enables students to better understand the place of the media in society, the way the media look at themselves and how journalists confront conflicting values in the performance of their roles. Cross-listed with PUAD 7370. **Semester Hours:** 3 to 3

PUAD 5380 - Citizen Participation: Theory and Practice

Tackles the issues of citizen participation and community involvement in theory and practice. Students work in class on understanding the theoretical foundations that are relevant to citizen participation. Students engage in significant out-of-class projects to ground them in the practice of public involvement. Cross-listed with PUAD 7380. **Semester Hours:** 3 to 3

PUAD 5410 - Administrative Law

Examines legal aspects of policy implementation particularly the relationship between courts and administrative agencies. Covers standards of judicial review and agency action; administrative procedure and due process; selected special topics such as rights, liabilities, and immunities of public employees; and administrative discretion and scientific uncertainty. Cross-listed with PUAD 7410. **Semester Hours:** 3 to 3

PUAD 5420 - Law and Public Policy

Examines the relationship between courts and legislative assemblies. Explores how legislators use the policy process to shape and influence the exercise of judicial authority, and how the courts affect the policy process in reviewing the constitutionality of state and federal legislation. Cross-listed with PUAD 7420. **Semester Hours:** 3 to 3

PUAD 5430 - Seminar in Legal Research Methods and Public Law Scholarship

Provides law library-based training in locating and analyzing primary and secondary sources of law. Individualized guidance in understanding and using the content of legal materials in the conduct of public law scholarship and law-based writing. When take **Semester Hours:** 3 to 3

PUAD 5440 - Negotiation and Conflict Resolution

Focuses on concepts and skills necessary to negotiate policy and management decisions and manage internal and external conflicts. Designed to help students understand the dynamics that affect negotiations and to apply the principles and strategies of negotiation in a variety of decision making and dispute resolution contexts. Cross-listed with PUAD 7440. **Semester Hours:** 3 to 3

PUAD 5450 - Law of All-Hazards Management

This course conveys knowledge of the statutes, regulations and court decisions governing the management of hazards by governmental agencies. It covers local, state and federal agencies as they mitigate, prepare for, respond to and recover from naturally, accidentally and intentionally caused disasters. Cross-listed with PUAD 7450. **Semester Hours:** 3 to 3

PUAD 5460 - Political Advocacy

Addresses advocacy & lobbying issues of public policy & govt problems. Special attention is given to how advocacy process works in the public sector & policy making bodies & how lobbying techniques & processes can be understood. General focus on practical **Semester Hours: 3 to 3**

PUAD 5501 - Contemporary Issues in Revenue and Tax Administration and Policy

This course provides a contemporary evaluation of Colorado's tax structure, revenue system, and the state budget. The interaction of politics, the initiative process, the State Constitution, and stakeholders is studied. Cross-listed with PUAD 7501. **Semester Hours: 3 to 3**

PUAD 5502 - Public Financial Management and Policy

Provides basic understanding of issues & tools relevant to financial mgmt of public & non-profit org, including managerial acct (managing resources & obligations, investing idle funds, reporting, financial statement analysis, overview of budgeting, reven **Semester Hours: 3 to 3**

PUAD 5503 - Governmental Budgeting

Focuses on theory and practices of government budgeting, including cycles, formats, political considerations, costing and analytical tasks. Covers both operating and capital budgeting, plus fiscal management issues. Cross-listed with PUAD 7503. **Semester Hours: 3 to 3**

PUAD 5540 - Organization Development

Studies the dynamics involved in managing and facilitating change in organizations by application of behavioral science knowledge. Emphasis is placed on both cognitive and experiential learning. A background in organization theory and administrative behavior is required. Cross-listed with PUAD 7540. **Semester Hours: 3 to 3**

PUAD 5615 - Health Policy

Draws upon existing policy models and evaluates the status of health policy formulation and implementation. Health policy topics include Medicaid and Medicare, managed care, health care reform proposals, telemedicine, the non-profit and for-profit role in health. Cross-listed with PUAD 7615. **Semester Hours: 3 to 3**

PUAD 5617 - Health Economics

Extends students' understanding of basic economic principles to consumer, physician, insurer, and health provider behavior. Current policy topics are analyzed from an economic perspective using published research. Students are required to write a research paper focused on analyzing a health care topic with the application of economic concepts. Prereq: PUAD 5004/7004 or equivalent economic course. Cross-listed with PUAD 7617. **Semester Hours: 3 to 3**

PUAD 5618 - Cost-Benefit Analysis

An intermediate-level course on the theory, methods, and application of economic evaluation in the health context. "Economic evaluation" includes cost analysis, cost-benefit analysis (CBA), cost-effectiveness analysis (CEA), and cost-utility analysis. Students are required to conduct an

economic evaluation by collecting data and information related to a health area of interest. Prereq: PUAD 5003/7003, 5330/7330, and 5617/7617. Cross-listed with PUAD 7618.

Semester Hours: 3 to 3

PUAD 5625 - Local Government Management

Relates the systems, processes, and principles of public management to the local government environment. Public management concepts such as strategic planning, bureaucracy, formal and informal organizational structures, human resource planning, management control, systems theory, and administrative behavior are explored within the context of local government. Cross-listed with PUAD 7625. **Semester Hours:** 3 to 3

PUAD 5626 - Local Government Politics and Policy

Examines local government from the perspective of politics and public policy making. The course focuses on local government political structures, policy analysis and formulation, political forces in administrative decision making, and the relationships between professional administrators and elected officials. Cross-listed with PUAD 7626. **Semester Hours:** 3 to 3

PUAD 5628 - Urban Social Problems

Examines local government from the perspective of sociology and group dynamics. Course could include some or all of the following subjects: neighborhoods and community groups, class and race relations, community crime, social service issues, immigration, the underclass in American society, and related urban social problems. Cross-listed with PUAD 7628. **Semester Hours:** 3 to 3

PUAD 5631 - Seminar in Environmental Politics and Policy

Examines the fundamental principles of politics and policy that shape strategies of environmental protection. Focuses on the role of institutional processes, government organizations and nongovernmental organizations in environmental politics and policy. Cross-listed with PUAD 7631. **Semester Hours:** 3 to 3

PUAD 5632 - Seminar in Environmental Management

Examines the practical challenges facing environmental managers today, using a series of case studies. Focuses on the role of institutional processes, government organizations and nongovernmental organizations in the practice of environmental management. Cross-listed with PUAD 7632. **Semester Hours:** 3 to 3

PUAD 5633 - Seminar in Natural Resource and Environmental Health Law

Studies administrative law aspects of environmental policy implementation & enforcement, role of courts in stimulating & limiting statutory reform, & regulatory innovation. Focuses on legal aspects of natural resource allocation & mgmt, & environmental pr **Semester Hours:** 3 to 3

PUAD 5634 - Theories of Sustainable Infrastructure Management

This seminar introduces theories of sustainable infrastructure management from a variety of disciplinary perspectives. Students then apply them to resolution of a variety of actual infrastructure management problems. Cross-listed with PUAD 7634. **Semester Hours:** 3 to 3

PUAD 5650 - Disaster and Emergency Management Policies

Examines policies for the management of hazards, emergencies and disasters. Focuses on a series of case studies concerning major disasters and on management principles drawn from those cases. Examines the role of institutional processes, government organizations and nongovernmental organizations in emergency management. Cross-listed with PUAD 7650.

Semester Hours: 3 to 3

PUAD 5655 - Principles of Emergency Management

This course is an introduction to the practice of emergency management. It provides instruction on the discipline of emergency management and covers not only administrative practice, but how public policy shapes how governments at all levels address hazards. **Semester Hours:** 3 to 3

When Offered: FALL

PUAD 5710 - Public Sector Technology

Technology is an integral piece of public administration today. Taking a historical/topical approach, this course examines the relationship between technology and culture; technology's role in economic growth; how technologically-driven prosperity impacts the balance between governments and markets; and the impact of information technologies on e-Government and e-Democracy. Cross-listed with PUAD 7710. **Semester Hours:** 3 to 3

PUAD 5910 - Women and Violence: A Sociological Perspective

This course is a sociological, feminist analysis of violence against women and girls that addresses the intersection of sexism and other forms of oppression such as racism, classism and heterosexism within historical, cultural, social and institutional contexts. Topics covered focus on overt and covert forms of sexual coercion, harassment and assault, battering and stalking. Cross-listed with PUAD 7910, CRJU 5910 and 7910. **Semester Hours:** 3 to 3

PUAD 5920 - Psychology of Violence Against Women

This class addresses the contributions and the limitations of current empirical and clinical psychological literatures about domestic violence. Topics covered include: distinguishing among mental health professionals regarding work with DV clients; the psychological impacts of domestic violence; services useful for responding to the needs of women and children; and an introduction to the psychology and treatment of batterers. Cross-listed with PUAD 7920, CRJU 5920 and 7920. **Semester Hours:** 3 to 3

PUAD 5930 - Battered Women and the Legal System

This course provides a practical understanding of how the following relate to battered women and their children: (a) major developments in federal, state, tribal, administrative, statutory and case law; (b) the role and responses of law enforcement, judges, attorneys, victim assistance providers and other legal system agents; and (c) the role and process of victim advocacy. Cross-listed with PUAD 5930, CRJU 5930 and 7930. **Semester Hours:** 3 to 3

PUAD 5940 - Domestic Violence Social Change and Advocacy

Info on theories & strategies behind contemp social change movements & skills necessary to organize & implement actions to influence public awareness & policy. Values of US society are

complex & require advocates/activists to develop a heightened sense of **Semester Hours:** 3 to 3

PUAD 5950 - Interpersonal Violence and Health

Interpersonal violence is a major health issue. Approximately 20% of emergency room visits by women are attributable to interpersonal violence. This course will provide students with the foundational knowledge and skills necessary for responding to the health care needs of patients experiencing interpersonal violence. **Semester Hours:** 3 to 3

PUAD 5960 - Interpersonal Violence and Health

Interpersonal violence is a major health issue. Approximately 20% of emergency room visits by women are attributable to interpersonal violence. This course will provide students with the foundational knowledge and skills necessary for responding to the health care needs of patients experiencing interpersonal violence. **Semester Hours:** 3 to 3

PUAD 5961 - Interpersonal Violence, Health Advocacy and Systems Change

Explores how healthcare professionals can develop successful public & institutional discourses that transform healthcare policies & systems to address the health needs of patients experiencing interpersonal violence. Methods of advocacy, activism & organi **Semester Hours:** 3 to 3

PUAD 6600 - Special Topics: Public Administration

Studies special topics relevant to public administration, such as public/private sector partnerships, community participation, international development, conflict management, regionalism, managing economic options for Colorado, and nonprofit management an **Semester Hours:** 1 to 4

PUAD 6840 - Independent Study: PUAD

Affords students the opportunity to do independent, creative work. Prereq: Permission of instructor. **Semester Hours:** 1 to 6

PUAD 6910 - Field Study in Public Administration

For students who have not had government experience. Studies and reports are made while students have full- or part-time administrative traineeships, internships, or similar positions in government agencies or government-related organizations. Prereq: Completion of the common core courses. It is recommended that at least three of the track courses also be completed. **Semester Hours:** 3 to 3

PUAD 6950 - Master's Thesis

Semester Hours: 3 to 6

PUAD 7007 - Qualitative Research Methods

Focuses on qualitative research methods that incorporate field work techniques such as observation, interviews, and content analysis. The main objective is to discover practicalities and

limitations of ethnographic methods with a comparative methodology perspective. Students are required to conduct a search project. Cross-listed with PUAD 5007. **Semester Hours:** 3 to 3

PUAD 7110 - Seminar in Nonprofit Management

This course provides an overview of the principles and concepts that are unique to nonprofit management. Topics include executive management, funding diversity, human resource management, marketing, volunteer management and ethics. Students are also given an introduction to the history and the importance of the nonprofit sector. Cross-listed with PUAD 5110. **Semester Hours:** 3 to 3

PUAD 7115 - Effective Grant Writing for Nonprofit and Public Sector Managers

This course is designed to provide students with the knowledge and skills to perform one of the most critical functions for any public or nonprofit sector agency today: gaining funds through proposals. Students learn how to locate and analyze funding opportunities through public and private funders and how to research, plan and write effective and competitive proposals. The course provides theoretical and practical knowledge about persuasive writing, the proposal submission and review process, building effective relationships with funders and how to proceed after post-funding decisions (positive or negative). Cross-listed with PUAD 5115. **Semester Hours:** 3 to 3

PUAD 7120 - Nonprofits and Public Policy

Examines the intersection of public policy and the nonprofit world and the ways in which each affects the other. The course examines current policy issues that relate to the nonprofit sector such as conversion of nonprofit to for-profit status, regulation of the nonprofit sector, issues of financial management, the role of nonprofits in devolution and privatization of government services, tax exemptions, "charitable choice," donor control, governance and the future of the sector. The course also examines the ways nonprofits have affected the policy process and public policies by exploring the factors that shape social movements, nonprofit advocacy, strategies of influence, and the role of nonprofits in social movements such as Civil Rights and the environment. Cross-listed with PUAD 5120. **Semester Hours:** 3 to 3

PUAD 7125 - Civil Society and Nongovernmental Organizations

This course is designed for students interested in the international nonprofit sector. The course compares non-Western forms of civil society with the American tradition of civil society. Students will learn about the efforts of Nongovernmental Organizations (NGOs) working in Third World countries to influence democracy, free association, and/or increased political and societal pluralism. Additionally, the course will focus on NGO management and governance issues in countries where there are strict controls and limits on the activities of NGOs. Cross-listed with PUAD 5125. **Semester Hours:** 3 to 3

PUAD 7130 - Collaboration Across Sectors

The blurring of the three economic sectors - government, business and nonprofits-- continues to increase as more partnerships are developed across sectors. This course focuses on collaboration and partnerships involving public, nonprofit and for-profit organizations. Additionally, students

are expected to gain an understanding of the issues and policies associated with the bidding, contracting, program delivery and reporting processes when nonprofit organizations are contracted to achieve public sector goals and/or private sector objectives. Cross-listed with PUAD 5130. **Semester Hours:** 3 to 3

PUAD 7140 - Nonprofit Financial Management

Financial management is one of the core competencies of effective nonprofit managers. Every nonprofit organization needs money to sustain or advance its mission. This course provides a grounding in financial management for the "non-accountant" by focusing on an array of knowledge and management skill areas necessary for allocating and controlling resources and for analyzing, reporting and protecting the fiscal health of the organization. Topics include key accounting principles, understanding and using financial statements, the budget development process, cash flow analysis, banking relationships, using the audit report, maximizing investment policy and strategy, and understanding the boundaries of tax exemption. Cross-listed with PUAD 5140. **Semester Hours:** 3 to 3

PUAD 7150 - Fundraising & Financial Resource Development

Designed to provide a comprehensive overview of funding sources available to nonprofit organizations (e.g., foundation and governmental grants, individual and corporate donations, entrepreneurial sources of revenue and events.), as well as detailed inform **Semester Hours:** 3 to 3

PUAD 7160 - Nonprofit Boards and Executive Leadership

The important roles and responsibilities of a voluntary board of directors and the process of governing are often misunderstood. This course explores the special powers of a nonprofit board of directors as framed by and responsive to public policy. From the perspective of organizational behavior and theory, the course examines the leadership role and interplay between board members and the executive director. The examination includes a comparative analysis of different governing models, and explores fundamental questions of board composition, the role of advisory boards, achieving effective board meetings, the realm of liability, using committees, and the board's role in fundraising, among other special subject matter. Cross-listed with PUAD 5160. **Semester Hours:** 3 to 3

PUAD 7170 - Strategic Management for Nonprofit and Public Managers

Designed to train public and nonprofit managers in the effective use of strategic management tools and techniques traditionally used by corporations. Strategic management tools and skills, although traditionally used by business, should not be seen as the exclusive domain of corporations. The course teaches students how to adapt traditional strategic management capabilities to the particular conditions of public and nonprofit organizations. Cross-listed with PUAD 5170. **Semester Hours:** 3 to 3

PUAD 7180 - Social Entrepreneurship

Designed to introduce students to the concept of social entrepreneurship. Using nonprofit (and public) organizational examples, students gain an understanding of what it means to be an innovative manager. Students study techniques designed to advance an organization's mission

and increase organizational effectiveness, accountability and efficiency through the use of for-profit techniques within a nonprofit context. Cross-listed with PUAD 5180. **Semester Hours:** 3 to 3

PUAD 7220 - Managing People in Public and Nonprofit Organizations

The study and practice of human resource management to build effective organizations. This course reviews the process of staffing an organization, motivating and managing employees from the initial steps of describing a position and determining compensation to recruiting qualified and diverse applicants, screening and selecting good employees, hiring, training, motivating, developing and providing feedback to employees; and layoffs and promotions. Contemporary issues concerning managerial flexibility and merit pay will be reviewed. Prereq: PUAD 7002 or PUAD 5002. Cross-listed with PUAD 5220. **Semester Hours:** 3 to 3

PUAD 7250 - Intergovernmental Management

Surveys the basic literature of intergovernmental management and examines the interactive role of managers at federal, state, regional, and local levels of government. Emphasis is placed on current intergovernmental issues. Cross-listed with PUAD 5250. **Semester Hours:** 3 to 3

PUAD 7260 - Managing in a Multicultural Society

Using a systems approach, diversity within organizations is examined through the construction and review of theories in private, public, and nonprofit organizations. Existing models of managing diversity are examined and analyzed. Cross-listed with PUAD 5260. **Semester Hours:** 3 to 3

PUAD 7271 - Managing Conflict and Change

Explores the process of change in organizations, communities, and society, and conflicts that arise. Through the use of relevant case studies and role playing exercises, students are provided a practical framework for looking at change and managing conflict associated with change. Cross-listed with PUAD 5271. **Semester Hours:** 3 to 3

PUAD 7310 - Policy Formulation & Implementation

Building on PUAD 5005, students learn how policy is developed and implemented in several levels of government - local, state, federal - and within organizations themselves. The course makes use of the case studies to explore the intricacies of developing and implementing policy and the political, economic, and institutional contexts that affect these two states of policy development. Students also consider the different criteria that can be used to judge the effectiveness of programs and policies. Prereq: PUAD 5005 or 7005. Cross-listed with PUAD 5310. **Semester Hours:** 3 to 3

PUAD 7320 - Public Policy Analysis

Provides training in the systematic analysis of policy and program initiatives using an economics orientation and employing a case method. The course covers benefit-cost analysis, cost-effectiveness analysis, present values, and the treatment of multiple criteria in public sector program analysis. Prereq: PUAD 7003/5003, 7004/5004 and 7005/5005. Cross-listed with PUAD 5320. **Semester Hours:** 3 to 3

PUAD 7350 - Program Evaluation

Describes the theory and methodology for the design of social research and demonstration projects and the application of analytic and statistical methods for evaluating public programs. Focus is on the application of evaluation methods and techniques of data interpretation. Report preparation is emphasized. Prereq: PUAD 7003 or PUAD 5003 and PUAD 7005 or PUAD 5005. Cross-listed with PUAD 5350. **Semester Hours:** 3 to 3

PUAD 7361 - Advanced Seminar in Public Policy and Management

In this seminar, students demonstrate their mastery of the knowledge and skills acquired in core courses, through the conduct of a client-based project. Students in a concentration must undertake a project related to that concentration. Students also make a juried oral presentation of the professional paper which reports project findings. This is the cumulative opportunity for students to apply concepts, theories, and research skills gained in the program to professional practice. (Successful completion of this course is an M.P.A. degree program requirement.) Cross-listed with PUAD 5361. **Semester Hours:** 3 to 3

PUAD 7370 - Media and Public Policy

Explores the conventions and practices of the print and electronic media in the United States. The course enables students to better understand the place of the media in society, the way the media look at themselves and how journalists confront conflicting values in the performance of their roles. Cross-listed with PUAD 5370. **Semester Hours:** 3 to 3

PUAD 7380 - Citizen Participation: Theory and Practice

Tackles the issues of citizen participation and community involvement in theory and practice. Students work in class on understanding the theoretical foundations that are relevant to citizen participation. Students engage in significant out-of-class projects to ground them in the practice of public involvement. Cross-listed with PUAD 5380. **Semester Hours:** 3 to 3

PUAD 7410 - Administrative Law

Examines legal aspects of policy implementation particularly the relationship between courts and administrative agencies. Covers standards of judicial review and agency action; administrative procedure and due process; selected special topics such as rights, liabilities, and immunities of public employees; and administrative discretion and scientific uncertainty. Cross-listed with PUAD 5410. **Semester Hours:** 3 to 3

PUAD 7420 - Law and Public Policy

Examines the relationship between courts and legislative assemblies. Explores how legislators use the policy process to shape and influence the exercise of judicial authority, and how the courts affect the policy process in reviewing the constitutionality of state and federal legislation. Cross-listed with PUAD 5420. **Semester Hours:** 3 to 3

PUAD 7430 - Seminar in Legal Research Methods and Public Law Scholarship

Provides law library-based training in locating and analyzing primary and secondary sources of law. Individualized guidance in understanding and using the content of legal materials in the conduct of public law scholarship and law-based writing. When take **Semester Hours:** 3 to 3

PUAD 7440 - Negotiation and Conflict Resolution

Focuses on concepts and skills necessary to negotiate policy and management decisions and manage internal and external conflicts. Designed to help students understand the dynamics that affect negotiations and to apply the principles and strategies of negotiation in a variety of decision making and dispute resolution contexts. Cross-listed with PUAD 5440. **Semester Hours:** 3 to 3

PUAD 7450 - Law of All-Hazards Management

This course conveys knowledge of the statutes, regulations and court decisions governing the management of hazards by governmental agencies. It covers local, state and federal agencies as they mitigate, prepare for, respond to and recover from naturally, accidentally and intentionally caused disasters. Cross-listed with PUAD 5450. **Semester Hours:** 3 to 3

PUAD 7460 - Political Advocacy

Addresses advocacy & lobbying issues of public policy & govt problems. Special attention is given to how advocacy process works in the public sector & policy making bodies & how lobbying techniques & processes can be understood. General focus on practical **Semester Hours:** 3 to 3

PUAD 7501 - Contemporary Issues in Revenue and Tax Administration and Policy

This course provides a contemporary evaluation of Colorado's tax structure, revenue system, and the state budget. The interaction of politics, the initiative process, the State Constitution, and stakeholders is studied. Cross-listed with PUAD 5501. **Semester Hours:** 3 to 3

PUAD 7502 - Public Financial Management and Policy

Provides basic understanding of issues & tools relevant to financial mgmt. of public & non-profit org, including managerial acct (managing resources & obligations, investing idle funds, reporting, financial statement analysis, overview of budgeting, reve **Semester Hours:** 3 to 3

PUAD 7503 - Governmental Budgeting

Focuses on theory and practices of government budgeting, including cycles, formats, political considerations, costing and analytical tasks. Covers both operating and capital budgeting, plus fiscal management issues. Cross-listed with PUAD 5503. **Semester Hours:** 3 to 3

PUAD 7540 - Organization Development

Studies the dynamics involved in managing and facilitating change in organizations by application of behavioral science knowledge. Emphasis is placed on both cognitive and experiential learning. A background in organization theory and administrative behavior is required. Cross-listed with PUAD 5540. **Semester Hours:** 3 to 3

PUAD 7600 - Special Topics: Public Administration

Studies special topics relevant to public administration, such as public/private sector partnerships, community participation, international development, conflict management,

regionalism, managing economic options for Colorado, and nonprofit management and
Semester Hours: 1 to 4

PUAD 7615 - Health Policy

Draws upon existing policy models and evaluates the status of health policy formulation and implementation. Health policy topics include Medicaid and Medicare, managed care, health care reform, proposals, telemedicine, and the non-profit and for-profit role in health. Cross-listed with PUAD 5615. **Semester Hours:** 3 to 3

PUAD 7617 - Health Economics

Extend students' understanding of basic economic principles to consumer, physician, insurer, and health provider behavior. Current policy topics are analyzed from an economic perspective using published research. Students are required to write a research paper focused on analyzing a health care topic with the application of economic concepts. Prereq: PUAD 7004/5004 or equivalent economics course. Cross-listed with PUAD 5617. **Semester Hours:** 3 to 3

PUAD 7618 - Cost-Benefit Analysis

An intermediate-level course on the theory, methods, and application of economic evaluation in the health context. "Economic evaluation" includes cost analysis, cost-benefit analysis (CBA), cost-effectiveness analysis (CEA), and cost-utility analysis. Students are required to conduct an economic evaluation by collecting data and information related to a health area of interest. Prereq: PUAD 7003/5003, 7330/5330 and 7617/5617. Cross-listed with PUAD 5618. **Semester Hours:** 3 to 3

PUAD 7625 - Local Government Management

Relates the systems, processes, and principles of public management to the local government environment. Public management concepts such as strategic planning, bureaucracy, formal and informal organizational structures, human resource planning, management control, systems theory, and administrative behavior are explored within the context of local government. Cross-listed with PUAD 5625. **Semester Hours:** 3 to 3

PUAD 7626 - Local Government Politics and Policy

Examines local government from the perspective of politics and public policy making. The course focuses on local government political structures, policy analysis and formulation, political forces in administrative decision making, and the relationships between professional administrators and elected officials. Cross-listed with PUAD 5626. **Semester Hours:** 3 to 3

PUAD 7628 - Urban Social Problems

Examines local government from the perspective of sociology and group dynamics. Course could include some or all of the following subjects: neighborhoods and community groups, class and race relations, community crime, social service issues, immigration, the underclass in American society, and related urban social problems. Cross-listed with PUAD 5628. **Semester Hours:** 3 to 3

PUAD 7631 - Seminar in Environmental Politics and Policy

Examines the fundamental principles of politics and policy that shape strategies of environmental protection. Focuses on the role of institutional processes, government organizations and nongovernmental organizations in environmental politics and policy. Cross-listed with PUAD 5631. **Semester Hours:** 3 to 3

PUAD 7632 - Seminar in Environmental Management

Examines the practical challenges facing environmental managers today, using a series of case studies. Focuses on the role of institutional processes, government organizations and nongovernmental organizations in the practice of environmental management. Cross-listed with PUAD 5632. **Semester Hours:** 3 to 3

PUAD 7633 - Seminar in Natural Resource and Environmental Health Law

Studies administrative law aspects of environmental policy implementation & enforcement, role of courts in stimulating & limiting statutory reform, & regulatory innovation. Focuses on legal aspects of natural resource allocation & mgmt, & environmental pr **Semester Hours:** 3 to 3

PUAD 7634 - Theories of Sustainable Infrastructure Management

This seminar introduces theories of sustainable infrastructure management from a variety of disciplinary perspectives. Students then apply them to resolution of a variety of actual infrastructure management problems. Cross-listed with PUAD 5634. **Semester Hours:** 3 to 3

PUAD 7650 - Disaster and Emergency Management Policies

Examines policies for the management of hazards, emergencies and disasters. Focuses on a series of case studies concerning major disasters and on management principles drawn from those cases. Examines the role of institutional processes, government organizations and nongovernmental organizations in emergency management. Cross-listed with PUAD 5650. **Semester Hours:** 3 to 3

PUAD 7655 - Principles of Emergency Management

This course is an introduction to the practice of emergency management. It provides instruction on the discipline of emergency management and covers not only administrative practice, but how public policy shapes how governments at all levels address haza **Semester Hours:** 3 to 3
When Offered: *FALL*

PUAD 7710 - Public Sector Technology

Technology is an integral piece of public administration today. Taking a historical/topical approach, this course examines the relationship between technology and culture; technology's role in economic growth; how technologically-driven prosperity impacts the balance between governments and markets; and the impact of information technologies on e-Government and e-Democracy. Cross-listed with PUAD 5710. **Semester Hours:** 3 to 3

PUAD 7910 - Women and Violence: A Sociological Perspective

This course is a sociological, feminist analysis of violence against women and girls that addresses the intersection of sexism and other forms of oppression such as racism, classism and

heterosexism, within historical, cultural, social and institutional contexts. Topics covered focus on overt and covert forms of sexual coercion, harassment and assault, battering and stalking. Cross-listed with PUAD 5910, CRJU 5910 and 7910. **Semester Hours:** 3 to 3

PUAD 7920 - Psychology of Violence Against Women

This class addresses the contributions and the limitations of current empirical and clinical psychological literatures about domestic violence. Topics covered include: distinguishing among mental health professionals regarding work with DV clients; the psychological impacts of domestic violence; services useful for responding to the needs of women and children; and an introduction to the psychology and treatment of batterers. Cross-listed with PUAD 5920, CRJU 5920 and 7920. **Semester Hours:** 3 to 3

PUAD 7930 - Battered Women and the Legal System

This course provides a practical understanding of how the following relate to battered women and their children: (a) major developments in federal, state, tribal, administrative, statutory and case law; (b) the role and responses of law enforcement, judges, attorneys, victim assistance providers and other legal system agents; and (c) the role and process of victim advocacy. Cross-listed with PUAD 5930, CRJU 5930 and 7930. **Semester Hours:** 3 to 3

PUAD 7940 - Domestic Violence Social Change and Advocacy

Info on theories & strategies behind contemp social change movements & skills necessary to organize & implement actions to influence public awareness & policy. Values of US society are complex & require advocates/activists to develop a heightened sense of **Semester Hours:** 3 to 3

PUAD 8010 - Historical and Comparative Foundations of Public Administration

A doctoral seminar on developments and changes in public administration as a field of study. It examines how public administration and bureaucracy has evolved and is defined, practiced, studied and taught. It must normally be taken during the first full semester of the doctoral program. Prereq: PUAD 7001 or PUAD 5001 (or equivalent). **Semester Hours:** 3 to 3

PUAD 8020 - Seminar in Public Management

An in-depth examination of contemporary literature, concepts, and theories of public management. Current issues and research problems are emphasized to prepare students for their advanced research. Prereq: PUAD 7003/5003, 7004/5004 or equivalent. **Semester Hours:** 3 to 3

PUAD 8030 - Seminar in Public Policy

Offers an in-depth examination of contemporary literature, concepts, and theories of public policy, with an emphasis on policy process. Current issues and research problems are emphasized to prepare students for their advanced research. Prereq: PUAD 7004/5004, 7005/5005 or equivalent. **Semester Hours:** 3 to 3

PUAD 8040 - Seminar In Economic and Institutional Foundations of Public Affairs

Offers an in-depth examination of the economic foundations of public affairs, with an emphasis on market failures, theoretical breakdowns of the market model, and the evolution of non-market institutions, as well as analytical tools grounded in economic foundations. Prereq: PUAD 8010 and 8030. **Semester Hours:** 3 to 3

PUAD 8050 - Quantitative Methods I

Introduces students to the foundational principles and techniques of quantitative analysis in the social sciences generally and in public affairs specifically, including statistical inference, regression analysis, and commonly-used statistical software packages. Prereq: PUAD 8010, 8020, 8030, and 8040. **Semester Hours:** 3 to 3

PUAD 8060 - Seminar On The Conduct Of Empirical Inquiry

Introduces basic elements of research design in the social sciences, focusing on the relationship between theories and methods, concept development and measurement, selection of observations or cases, and alternative methods of data collection and analysis. Prereq: PUAD 5003,7003 or equivalent, PUAD 8010, 8020, 8030, and 8040. **Semester Hours:** 3 to 3

PUAD 8070 - Quantitative Methods II

Moves beyond basic linear regression techniques by covering advanced analytic methods, such as maximum likelihood estimation for dichotomous and ordered dependent variables. Students will also be introduced to other techniques such as time series analysis and topics such as advanced issues in measurement. Prereq: PUAD 8010, 8020, 8030, 8040, 8050, and 8060. **Semester Hours:** 3 to 3

PUAD 8840 - Independent Study: PUAD

(Doctoral level) Affords students the opportunity to do independent, creative work. Prereq: Permission of advisor. **Semester Hours:** 1 to 6

PUAD 8990 - Doctoral Dissertation

Once students are admitted to candidacy, they must be continuously registered for dissertation credit each fall and spring semester or be automatically dropped from the program. Students must register for 5 credit hours per semester. In cases where students will not be using any university resources during a particular semester, they may petition the Ph.D. director to register for fewer semester credit hours. Students must be registered for dissertation credit during the semester they have a colloquium or defense. **Semester Hours:** 1 to 10

Religious Studies Courses (RLST)

RLST 1610 - Introduction to Religious Studies

Religion is a complex phenomenon which involves social norms, beliefs and fears, and overarching world view. Religious experiences are among the most profound an individual can have. The course examines religious phenomena from various perspectives, including philosophical, historical, psychological, anthropological, political, sociological, the symbolic and ritual. **Semester Hours:** 3 to 3

RLST 2660 - World Religions

Provides an introduction to the basic beliefs and concepts of the world's great religious traditions. Covers the history, development, belief patterns, and institutional forms of the world's religions, including Judaism, Zoroastrianism, Christianity, Islam, Hinduism, Buddhism, Confucianism, Taoism and Shintoism. **Semester Hours:** 3 to 3

RLST 2680 - The American Indian Experience

Surveys the relationships between Indian and non-Indian peoples, particularly in the context of the unique interaction between tribes and the federal government. Cross-listed with ETST 2606. **Semester Hours:** 3 to 3

RLST 2700 - The Bible as Literature

Introduces students to biblical literature. Selections from the various genres of writing in Hebrew (history, wisdom, prophecy, literature) are read and discussed, as well as representative sections from the New Testament, including the gospels and the writings of Paul. Cross-listed with ENGL 2520. **Semester Hours:** 3 to 3

RLST 3000 - Judaism, Christianity and Islam: Affinity and Difference

Judaism, Christianity and Islam have much in common, beginning with their common patriarch Abraham. But there are also elements in each that are unrecognizable from the perspectives of the other two. This course will trace the relationships among the Children of Abraham across history and in today's turbulent world. **Semester Hours:** 3 to 3

RLST 3060 - History of Early Christianity

History of the rise of Christianity and the decline of paganism in the Roman Empire from the birth of Jesus of Nazareth to ca. 500 A.D. Special emphasis on social, historical, legal, and cultural context of Christianity's rise and paganism's decline. **Semester Hours:** 3 to 3

RLST 3080 - Reformation Europe

Between the early 16th and the middle 17th centuries, Europe was torn by explosive ideological conflicts, resulting in religious upheaval, political revolution, and civil and international wars, but also underwent important experiments in representative government and economic controls. Cross-listed with HIST 4022, 5022. **Semester Hours:** 3 to 3

RLST 3100 - Islamic Politics and Culture

Comprehensive, in-depth study of Islam and Muslims. Islam is viewed as a "way of life" with social, economic, psychological, spiritual, and political implications. Among topics to be examined are: women in Islam, Jihad, fundamentalism, Islamic movements, Islam and the West. Cross-listed with PSCI 4165. **Semester Hours:** 3 to 3

RLST 3300 - Shamanic Traditions

Explores shamanic religious traditions across the world. This form of religion, involving spiritism, animism, trance states, and "mind power," is the oldest and most widespread religion in world history. Covers the "Shramana" disciplines of India (probable source for the name "Shamanism"), Tibet, Central Asia, Korea, China, Japan, Australia, Pacific Islands, Native America, and traditional Africa. **Semester Hours:** 3 to 3

RLST 3400 - Asian Philosophies and Religions

We in the Western world encounter a vastly different world, a radically different "universe of meaning," when we examine the traditions of the East. Even what we tacitly assume to be "real" is claimed by the Hindus and Buddhists of India to be a grand illusion. The world of China is, again, very different from India. An examination of Tibetan and Japanese religious forms will conclude our study of Asian thought. Cross-listed with PHIL 3666. **Semester Hours:** 3 to 3

RLST 3500 - Religions of India

Examines the transcendentalist philosophy of India, which rests at the foundation of the great Eastern religious traditions of Hinduism and Buddhism. The Indian ideas of God, the soul, time, the nature of the universe, and its ultimate goal are examined. **Semester Hours:** 3 to 3

RLST 3660 - Chinese Philosophy and Culture

China is a fascinating world with its own characteristic orientation to philosophical questions. Chinese thinkers produced the "Flowering of a Hundred Schools of Thought" in the Axial Age, the same period of time in which philosophy was coming to birth in ancient Greece. Covers some of the Chinese schools, including Confucianism, Taoism, Mohism, Legalism, Chinese "Logic," and the later schools of Neo-Confucianism, Neo-Taoism and Chinese Buddhism. Cross-listed with PHIL 3981. **Semester Hours:** 3 to 3

RLST 3720 - Religious Narratives

Investigates the language and structure of religious discourse in Western literature. Welcomes interdisciplinary and comparative perspectives with a focus on cultural constructions of the sacred. Cross-listed with ENGL 3520. **Semester Hours:** 3 to 3

RLST 3740 - Biblical Traditions: Old Testament

Investigates the history and nature of the Biblical text. Follows the tradition of critical scholarship beginning in the Enlightenment era and continued down to the present day, sometimes entitled "Secular Humanism." Topics include theories of authorship of the Torah, its general nature and content; the historical books of the Bible, the Prophets, and the Wisdom Literature. **Semester Hours:** 3 to 3

RLST 3760 - Biblical Studies: New Testament

Examines the books of the New Testament from a scholarly, historical-critical perspective, which views it as a historically and culturally conditioned text, reflecting the beliefs and attitudes of the authors who produced it. The course covers the canonical gospels, letters, and other writings of the New Testament. **Semester Hours:** 3 to 3

RLST 3770 - Archaeological Discoveries Relating to the Bible

Examines the revolutionary impact of archaeology on Biblical Studies. Among these discoveries are Egyptian, Mesopotamian, and Canaanite texts, the Dead Sea Scrolls, and the Gnostic texts. Through these investigations, the Bible will be placed in its appropriate historical, literary and cultural context. **Semester Hours:** 3 to 3

RLST 4000 - Religion and Cultural Diversity

Religion is one of the key elements which creates multiculturalism. This course explores issues in religion and religious identity in contemporary America, including Native American spiritual traditions, Jewish-American traditions, Muslim-American traditions, Asian-American traditions, the African-American Pentecostal movement, and the growth of the Black Muslim movement. Attention is also given to the question of gender issues, as the traditional model for gender roles was formulated, in part, from a religious basis. **Semester Hours:** 3 to 3

RLST 4010 - Comparative Religious Systems

A cross-cultural analysis of religious belief and behavior. Emphasis is placed on religions found among non-Western cultural groups and includes consideration of how major religions of the world are manifested on local levels. Cross-listed with ANTH 4130, 5130, RLST 5010.

Semester Hours: 3 to 3

RLST 4020 - Sociology of Religion

An intensive review and analysis of the fundamental tenets of religion as a social institution, with emphasis on present-day religious cults, their beliefs and activities in society. Prereq: SOCY 1001 or permission on instructor. Cross-listed with RLST 5020 and SOCY 4610, 5610.

Semester Hours: 3 to 3

RLST 4040 - Psychology of Religion

Examines the theories developed by some of the great names in the field of psychology and their approaches to religion. Questions addressed include why people become religious, how religion functions in their lives, religious experience and assessment of the validity of religious claims. Key theorists studied include: William James, Sigmund Freud, Carl G. Jung, Abraham Maslow and Erich Fromm. Cross-listed with RLST 5040. **Semester Hours:** 3 to 3

RLST 4060 - Philosophy of Religion

Nature of religion and methods of studying it. Cross-listed with HUMN 5600, PHIL 4600, 5600, RLST 5060, and SSCI 5600. **Semester Hours:** 3 to 3

RLST 4070 - Western Religious Thought

Focuses on philosophers and theologians who have contributed to the evolution of the three great religious traditions of the West: Judaism, Christianity and Islam. Targets thinkers from three periods: the ancient or formative era, the medieval era, and the contemporary era. Note: Specific philosophers chosen may vary in different semesters. Cross-listed with PHIL 4710.

Semester Hours: 3 to 3

RLST 4080 - Eastern Religious Thought

Parallels the course in Western religious thought. The great religious traditions of the East, including Hinduism, Buddhism, Confucianism, and Taoism, are examined as they are presented in the writings of key philosophical representatives of each tradition. Cross-listed with PHIL

4720. **Semester Hours:** 3 to 3

RLST 4100 - Special Topics in Religion

This special topics course allows for a variety of subjects to be explored in different semesters, including such issues as the nature of religious experience, communication with the divine, specific historical themes and events in religion. **Semester Hours:** 3 to 3

RLST 4160 - Mysticism

Explores the mystical strains within the world's great religious traditions. Jewish, Christian, and Islamic mystics did not always express the same beliefs and attitudes as mainstream adherents. When mystics are placed side-by-side, amazing similarities appear. One cannot always tell whether a given mystical statement is Hindu, Jewish, Sufi, or Christian. This class examines these mystical traditions, East and West. Cross-listed with RLST 5160. **Semester Hours:** 3 to 3

RLST 4260 - Kosmos: Theories of the Universe

A course in philosophical cosmology using material from the sciences, history and philosophy. The goal is to illuminate our present theories concerning the nature of the universe and the place of life within it. Cross-listed with PHIL 3420. **Semester Hours:** 3 to 3

RLST 4280 - Current Perspectives on the Evolution of Consciousness and Culture

Studies of evolution traditionally regard morphology (anatomy)/behavior and mind/consciousness as separate fields that belong either in biology/paleontology or in psychology/philosophy. The "middle ground" behavior, anthropology, social systems, is also treated separately in most cases. Recent approaches tend toward a more holistic view using unifying principles and "laws of nature" that show similar processes (dissipative effects, information theory, development theory) operating across all fields. Examines the relationships and common threads between the physical anatomical evolution of organisms and their behavior perception and consciousness. Prereq: Introductory course in evolution (biology/paleontology), psychology, philosophy, anthropology, or permission of instructor. Cross-listed with GEOL 3100 and PHIL 3100. **Semester Hours:** 3 to 3

RLST 4300 - Myth and Symbol

Approaches the field of classical Greek mythology and religion from the perspective of Jungian archetypal theory. The deities of the ancient Greeks are presented as archetypal patterns with universal correlates elsewhere in world religions. A foundation in C. G. Jung's archetypal theory will be offered to ground the course material. Cross-listed with RLST 5300. **Semester Hours:** 3 to 3

RLST 4320 - Spirituality in the Modern World

Examines the issue of spiritual currents in the modern world. Joseph Campbell claimed that Western culture long ago lost an active sense of the sacred and that the traditional religions have not been the spiritual center for the vast majority of moderns for centuries. This class looks at the modern spiritual awakening in Shamanism, Eastern thought, the New Age movement, the men's movement, paganism and goddess religion, and the revival of traditional religious forms in recent decades. Prereq: RLST 4300. **Semester Hours:** 3 to 3

RLST 4340 - The Hero's Journey

The myth of the hero's journey serves as a metaphor for the vicissitudes life puts each of us through. The hero or her represents the ego-self who undertakes the journey--a grand adventure into the realm of the unknown--to seek the treasure. He or she is greatly transformed by the process, ultimately into the great self, who wins the boon to share with all humanity. Versions of the story are found all over the world, such as in the sagas of Gilgamesh, Odysseus, Psyche, King Arthur, Dorothy of Oz, and Luke Skywalker from a galaxy far, far, away. Cross-listed with ENGL 3530. **Semester Hours:** 3 to 3

RLST 4360 - Freudian and Jungian Perspectives in Dream Analysis

Focuses on the phenomenon of dreams in a way that differs distinctly from the traditional approach to the subject in the field of psychology. Throughout history, dreams have been regarded as prophetic, as the voice of the gods. These "spiritual" approaches to dreams are examined, as well as some major theorists on dreams, especially the work of Sigmund Freud and C. G. Jung. **Semester Hours:** 3 to 3

RLST 4400 - Differing Concepts of God

God, gods, and goddesses have been imagined in many different modes, forms, aspects, and guises throughout human history. This course investigates Paleolithic models of God, the Great Goddess of the Neolithic era, the gods of mythological traditions, Biblical God, the abstract God of the philosophers, the God of the pantheists, the deists, and the God of the mystics. Cross-listed with RLST 5400, PHIL 4650 and 5655. **Semester Hours:** 3 to 3

RLST 4420 - Goddess Traditions

Explores the many forms which goddesses have assumed through history, including the Neolithic Great Mother and her heiresses in the ancient Mediterranean cultures, such as: Isis, Ishtar, Demeter, Hecate, Aphrodite, Artemis, Athena and others, and their parallels in India. Goddess traditions have encompassed a full spectrum from virgins to Great Mothers to dark underworld goddesses of death and destruction. Cross-listed with RLST 5420 and WGST 4420/5420. **Semester Hours:** 3 to 3

RLST 4440 - Concepts of the Soul

Asks the questions: What is the nature of the human being? What makes us "human?" Do humans have a "soul?" What is its nature? Is it different from the "spirit?" What is its ultimate fate? Examines the various theories put forward by philosophers of both Eastern and Western traditions. Cross-listed with RLST 5440 and PHIL 4470, 5470. **Semester Hours:** 3 to 3

RLST 4460 - Death and Concepts of Afterlife

Examines how the major religious traditions approach the issue of death. Where the Egyptians were fascinated by death, their Mesopotamian and Hebrew neighbors saw no kind of experience continuing after death. Concepts of the Final Judgment Day and the end of the world follow in Zoroastrianism, Christianity, and Islam, while Indian religions developed a sophisticated theory of reincarnation and the "art of dying." Finally, we will turn to Chinese belief in ancestral spirits. Cross-listed with RLST 5460. **Semester Hours:** 3 to 3

RLST 4480 - Perspectives on Good and Evil

Examines the "problem of evil." As formulated in the philosophical tradition: if the deity is understood as perfect, then why is there evil? How can a perfect entity create imperfection? Why would an absolutely benevolent God cause or allow the innocent to suffer? Presents the classical formulation of the problem, the traditional solutions offered, and the classical critiques of each answer. Considers the perspectives of the various religious orientations, each of which deals differently with the question of suffering. Cross-listed with PHIL 4480. **Semester Hours:** 3 to 3

RLST 4500 - Religion and Politics

Exploration of: (1) theoretical perspectives on the relationship between religion and politics; (2) causes of and justifications for the historical development of the Western separation of "church and state;" (3) contemporary responses to and analyses of this separation; and (4) several current debates about public policy in America that reveal tensions between these two spheres. Cross-listed with PSCI 4057, 5057 and RLST 5500. **Semester Hours:** 3 to 3

RLST 4710 - Women and Religion

A sociological exploration of the contemporary roles of women in religion. Course examines American and world religious groups with an eye to women's involvement. Considers how women have changed these traditions as they take on leadership roles and discusses the tensions that arise within these traditions as a result of their expanded participation. Cross-listed with HUMN 5710, SSCI 4710/5710, WGST 4710/5710, RLST 5710. **Semester Hours:** 3 to 3

RLST 4730 - Whores and Saints: Medieval Women

Studies how women are presented in texts, as well as works by women. Investigates the roles open to women and societal attitudes toward women, who were considered seductresses, saints, scholars and warriors in the middle ages. Prereq: Nine hours of literature courses or instructor permission. Cross-listed with ENGL 4510/5510, RLST 5730 and WGST 4510/5510. **Semester Hours:** 3 to 3

RLST 4840 - Independent Study: RLST

Various topics in religious studies pursued in independent research. **Semester Hours:** 1 to 3

RLST 5010 - Comparative Religious Systems

A cross-cultural analysis of religious belief and behavior. Emphasis is placed on religions found among non-Western cultural groups and includes consideration of how major religions of the world are manifested on local levels. Cross-listed with ANTH 4130, 5130, RLST 4010.

Semester Hours: 3 to 3

RLST 5020 - Sociology of Religion

An intensive review and analysis of the fundamental tenets of religion as a social institution, with emphasis on present-day religious cults, their beliefs and activities in society. Cross-listed with RLST 4020 and SOCY 4610, 5610. **Semester Hours:** 3 to 3

RLST 5040 - Psychology of Religion

Examines the theories developed by some of the great names in the field of psychology and their approaches to religion. Questions addressed include why people become religious, how religion functions in their lives, religious experience and assessment of the validity of religious claims. Key theorists studied include: William James, Sigmund Freud, Carl G. Jung, Abraham Maslow and Erich Fromm. Cross-listed with RLST 4040. **Semester Hours:** 3 to 3

RLST 5060 - Philosophy of Religion

Nature of religion and methods of studying it. Cross-listed with HUMN 5600, PHIL 4600, 5600, RLST 4060, and SSCI 5600. **Semester Hours:** 3 to 3

RLST 5160 - Mysticism

Explores the mystical strains within the world's great religious traditions. Jewish, Christian, and Islamic mystics did not always express the same beliefs and attitudes as mainstream adherents. When mystics are placed side-by-side, amazing similarities appear. One cannot always tell whether a given mystical statement is Hindu, Jewish, Sufi, or Christian. This class examines these mystical traditions, East and West. Cross-listed with RLST 4160. **Semester Hours:** 3 to 3

RLST 5300 - Myth and Symbol

Approaches the field of classical Greek mythology and religion from the perspective of Jungian archetypal theory. The deities of the ancient Greeks are presented as archetypal patterns with universal correlates elsewhere in world religions. A foundation in C. G. Jung's archetypal theory will be offered to ground the course material. Cross-listed with RLST 4300. **Semester Hours:** 3 to 3

RLST 5400 - Differing Concepts of God

God, gods, and goddesses have been imagined in many different modes, forms, aspects, and guises throughout human history. This course investigates Paleolithic models of God, the Great Goddess of the Neolithic era, the gods of mythological traditions, Biblical God, the abstract God

of the philosophers, the God of the pantheists, the deists, and the God of the mystics. Cross-listed with RLST 4400, PHIL 4650 and 5655. **Semester Hours:** 3 to 3

RLST 5420 - Goddess Traditions

Explores the many forms which goddesses have assumed through history, including the Neolithic Great Mother and her heiresses in the ancient Mediterranean cultures, such as: Isis, Ishtar, Demeter, Hecate, Aphrodite, Artemis, Athena and others, and their parallels in India. Goddess traditions have encompassed a full spectrum from virgins to Great Mothers to dark underworld goddesses of death and destruction. Cross-listed with RLST 4420 and WGST 4420/5420. **Semester Hours:** 3 to 3

RLST 5440 - Concepts of the Soul

Asks the questions: What is the nature of the human being? What makes us "human?" Do humans have a "soul?" What is its nature? Is it different from the "spirit?" What is its ultimate fate? Examines the various theories put forward by philosophers of both Eastern and Western traditions. Cross-listed with RLST 4440 and PHIL 4470, 5470. **Semester Hours:** 3 to 3

RLST 5460 - Death and Concepts of Afterlife

Examines how the major religious traditions approach the issue of death. Where the Egyptians were fascinated by death, their Mesopotamian and Hebrew neighbors saw no kind of experience continuing after death. Concepts of the Final Judgment Day and the end of the world follow in Zoroastrianism, Christianity, and Islam, while Indian religions developed a sophisticated theory of reincarnation and the "art of dying." Finally, we will turn to Chinese belief in ancestral spirits. Cross-listed with RLST 4460. **Semester Hours:** 3 to 3

RLST 5500 - Religion and Politics

Exploration of: (1) theoretical perspectives on the relationship between religion and politics; (2) causes of and justifications for the historical development of the Western separation of "church and state;" (3) contemporary responses to and analyses of this separation; and (4) several current debates about public policy in America that reveal tensions between these two spheres. Cross-listed with PSCI 4057, 5057 and RLST 4500. **Semester Hours:** 3 to 3

RLST 5710 - Women and Religion

A sociological exploration of the contemporary roles of women in religion. Course examines American and world religious groups with an eye to women's involvement. Considers how women have changed these traditions as they take on leadership roles and discusses the tensions that arise within these traditions as a result of their expanded participation. Cross-listed with HUMN 5710, SSCI 4710/5710, WGST 4710/5710, RLST 4710. **Semester Hours:** 3 to 3

RLST 5730 - Whores and Saints: Medieval Women

Studies how women are presented in texts, as well as works by women. Investigates the roles open to women and societal attitudes toward women, who were considered seductresses, saints, scholars and warriors in the middle ages. Prereq: Nine hours of literature courses or instructor permission. Cross-listed with ENGL 4510/5510, RLST 4730 and WGST 4510/5510. **Semester Hours:** 3 to 3

Research & Evaluation Methods Courses (RSEM)

RSEM 5000 - Orientation to Research and Measurement in Education

Provides an overview of the research process, various types of research, and major concepts and techniques in educational measurement. The emphasis is on: (1) critiquing educational research studies; and (2) critiquing tests and other measures used in edu **Semester Hours:** 3 to 3

RSEM 5050 - Classroom Assessment

Provides teachers with a conceptual framework for developing new assessments of student learning and attitudes, and for evaluating and selecting assessment instruments developed by others. Techniques of performance assessment and the use of portfolios in **Semester Hours:** 3 to 3

RSEM 5080 - Research In Schools

Provides teachers with the competencies necessary for examining their professional experiences using formal and informal methods of inquiry. Teachers become more reflective practitioners who investigate questions that arise from their work in schools. The **Semester Hours:** 3 to 3

RSEM 5100 - Basic Statistics

A first-level course on the use and interpretation of descriptive and inferential statistics. Topics covered include: frequency distributions, measures of central tendency and measures of variability; shapes of distributions; standard scores; scattergra **Semester Hours:** 3 to 3

RSEM 5110 - Introduction to Measurement

A first-level course that examines the nature and purpose of psychological measurement. Particular attention is paid to the concepts of reliability, validity, norms, interpretation of scores, response sets, fairness in testing, and norm-referenced vs. cri **Semester Hours:** 3 to 3

RSEM 5120 - Introduction to Research Methods

Examines the purposes of research, the methods and designs of quantitative and qualitative research, and the processes involved in research studies. The methods of research examined include experimental designs, quasi-experimental designs, descriptive sur **Semester Hours:** 3 to 3

RSEM 5350 - Workshop in Instrument Development

Provides an opportunity to learn the art and technology of developing different measures in education. Students develop an instrument of their own design. Topics vary. **Semester Hours:** 3 to 3

RSEM 5400 - Introduction to Evaluation of Programs and Persons

Models and methods of evaluating programs and persons in education and related fields, such as business and nursing, are examined. Emphasis is given to the topics of formative and summative evaluation, frameworks for program evaluation, teacher evaluation **Semester Hours:** 3 to 3

RSEM 5800 - Workshop: Topics in Research and Evaluation Methodology

Topics and credit hours vary from term to term. Often workshops address a current topic in research, evaluation, or measurement by considering its scholarly foundations and its application to schools and other educational settings. **Semester Hours:** 1 to 4

RSEM 5840 - Independent Study: RSEM

Semester Hours: 1 to 4

RSEM 5910 - Practicum in Research and Evaluation Methodology

Supervised work in projects that provide experience in data analysis, research, measurement, or evaluation. Requires a minimum of 75, 150, 225, or 300 clock hours under supervision (for 1, 2, 3, or 4 credit hours, respectively). **Semester Hours:** 1 to 4

RSEM 5920 - Readings in Educational Statistics

Semester Hours: 1 to 3

RSEM 5921 - Readings in Educational Research

Semester Hours: 1 to 3

RSEM 5923 - Readings in Educational Measurement

Semester Hours: 1 to 3

RSEM 5924 - Readings in Program Evaluation

Semester Hours: 1 to 3

RSEM 6050 - Seminar in Assessment Policy Issues

Three public policy issues involving educational assessment are analyzed. The policy issues selected vary to reflect current policy debates. Sample issues are school accountability, grading and report cards, performance-based graduation standards, classif **Semester Hours:** 3 to 3

RSEM 6100 - Methods of Qualitative Inquiry

Prepares graduate students to conduct field research employing qualitative methods and perspectives. Students become familiar with evolving theoretical and methodological perspectives in qualitative research drawn from anthropology, clinical psychology, s **Semester Hours:** 3 to 3

RSEM 6200 - Single Case Research Design for Education

This course provides an overview of Single Case research Design (SCRD) within educational settings. The course will describe single case designs (SCD), specify the types of questions that SCD's are designed to answer, discuss the internal and external va **Semester Hours:** 3 to 3

RSEM 7000 - Doctoral Seminar in Research Methods

Designed for students beginning doctoral work, explores conceptional and practical bases for doing and evaluating educational research. The chain of reasoning linking the conceptualization of a research problem, the posing of questions in a social process **Semester Hours:** 3 to 3

RSEM 7010 - Educational Assessment And Measurement

This advanced course incorporates foundational knowledge and application of assessment and measurement tools in school settings. Foundational concepts are utilized to better understand student achievement and growth indicators, and inferences about school **Semester Hours:** 3 to 3

RSEM 7050 - Methods of Survey Research

Covers the purposes and methods of survey research. Topics included are: goals and uses of survey research, data collection methods, questionnaire and interview protocol design, reliability and validity of data collection methods, sampling, ways to reduce **Semester Hours:** 3 to 3

RSEM 7100 - Advanced Methods of Qualitative Inquiry

An advanced seminar directed at individuals who have completed an introductory course in methods of qualitative research. Topics included are qualitative data collection, data analysis, and writing about data. Students collect and analyze data. Prereq: RS **Semester Hours:** 3 to 3

RSEM 7110 - Intermediate Statistics

Continuation of RSEM 5100, covering more advanced methods of analyzing data, with an emphasis on the use and interpretation of descriptive and inferential techniques. Topics covered are one-way and two-way analysis of variance; power; multiple comparisons **Semester Hours:** 3 to 3

RSEM 7120 - Advanced Methods in Quantitative Inquiry and Measurement

Covers advanced topics in quantitative design and analysis, including advanced measurement topics. Topics include: specific types of design used in experimental, quasi-experimental, correlational, and survey research; multivariate ANOVA, ANCOVA and MRC; f **Semester Hours:** 3 to 3

RSEM 7150 - Mixed Methods Research

This seminar is directed at individuals who have completed both qualitative and quantitative research courses and are interested in combining these in the mixed-method approach. Focus will be on developing the skills and knowledge needed to formulate mixed **Semester Hours:** 3 to 3

RSEM 7210 - Program Evaluation

This advanced course incorporates foundational knowledge and application of the topic of program evaluation as it applies to inquiry and decision making in schools and other educational settings. **Semester Hours:** 3 to 3

RSEM 7240 - Patterned Inquiry for Educational Administrators

This seminar provides students with a conceptual and practical basis for conducting and evaluating educational research. Its focus is on the application of research to problems of administrative practice. The seminar is also intended to prepare students f **Semester Hours:** 1 to 6

RSEM 7500 - Special Topics: Research and Evaluation Methods

Specific topics vary from semester to semester. **Semester Hours:** 1 to 6

School Library Program Courses (SCHL)

SCHL 5020 - Collection Development

Principles and practices for developing information collections to meet user needs. Includes selection, evaluation and policy and procedure development for all materials, including print, electronic technologies and multimedia. Prereq: SCHL 5530. **Semester Hours:** 3 to 3

SCHL 5030 - Information Literacy and Reference

Teaching, assessment, and integration of information literacy skills and educational technology standards with subject content areas. Reference collection development, policies and procedures, and use of and reference tools, including electronic resources **Semester Hours:** 3 to 3

SCHL 5040 - Information Storage and Utilization

Provides basic principles and practices of utilizing standard methods for organizing, accessing and storing information. Includes cataloging and classification in text-based and electronic systems. **Semester Hours:** 2 to 2

SCHL 5100 - School Libraries in the Digital Age

An introduction to the School Library profession, including its history, standards, organizations, and current trends. Course focuses on foundational principles and roles of school librarianship, as well as methods for developing a culturally responsive r **Semester Hours:** 4 to 4

SCHL 5110 - Integrating Instructional Technology Practices in School Libraries

Analyze instructional technology use in school library settings. Discuss current trends and issues related to the use of technology within schools. Emphasis integrating instructional technology that focuses on student achievement and the students' ability **Semester Hours:** 2 to 2

SCHL 5160 - Managing School Library Programs

Case studies in the organization and administration of school library and instructional leadership of programs and projects. Topics include project management, personnel administration, budget development, management philosophies, copyright and intellectual **Semester Hours:** 3 to 3

SCHL 5200 - Promoting Literature through the School Library

Approaches the school library as a resource to promote literacy and development in children and young adults. Topics include genres of literature, methods for advising students towards appropriate reading and media resources, and the promotion of multiple **Semester Hours:** 3 to 3

SCHL 5530 - Foundations of School Librarianship

This course is the first course in the School Library programs and provides an overview of school librarianship. The course is designed to develop an understanding of the history of school library programs, their current place in the public school system **Semester Hours:** 2 to 2

SCHL 5830 - School Library Workshop

Specific content and titles vary depending upon the particular school library skills addressed in the course. **Semester Hours:** 0.5 to 4

SCHL 5911 - School Library Field Experience-Elementary

Provides practical experience in the management of a school library program. Includes 90 hours in an elementary school library plus instruction within an online seminar for practicum coaching and field experience goals and instructional development. Prere **Semester Hours:** 3 to 3

SCHL 5912 - School Library Field Experience-Secondary

Provides practical experience in the management of a school library program. Includes 90 hours in a secondary (7-12) school library plus instruction within an online seminar for practicum coaching and field experience goals and instructional development. **Semester Hours:** 3 to 3

SCHL 5913 - School Library Field Experience

Field experiences in selected K-12 school libraries that meet a high professional standard. The course serves as a capstone experience for endorsement and master's degree plans and helps induct students into the School Library profession by bridging their **Semester Hours:** 3 to 3

SCHL 6720 - Research In Information And Learning Technologies

Analyze, evaluate and interpret published research conducted in library science. Provide an introduction to qualitative and quantitative data collection and data analysis measures. A school library practitioner-based action research project will be produced **Semester Hours:** 3 to 3

SCHL 6999 - Leadership and Practice in School Libraries

Designed to be the final class in the Master's in School Libraries Program, it is a reflective examination of the nature of contemporary leadership and practice in the field and provides a structure and forum for the successful completion of the comprehensive **Semester Hours:** 3 to 3

Secondary Education Courses (SECE)

SECE 4050 - Introduction to Science Teaching and Learning

Focus on conceptual development, conceptual change, collaborative learning, students' conceptions of various topics in science, practical issues encountered in facilitating learning, managing the classroom, formative and summative assessment, and differen **Semester Hours: 2 to 2**

SECE 5050 - Introduction to Science Teaching and Learning

Focus on conceptual development, conceptual change, collaborative learning, students' conceptions of various topics in science, practical issues encountered in facilitating learning, managing the classroom, formative and summative assessment, and differen **Semester Hours: 2 to 2**

SECE 5060 - Improvement of Instruction

Designed to assist the educator in the systematic improvement of instruction. Emphasis is on emergent knowledge related to successful classroom practices, techniques of assessment, analysis and action related to the improvement of professional skills. Cro **Semester Hours: 3 to 3**

SECE 5200 - Classroom Management

Instructional management, physical management, and behavior management are studied as interactive components in the establishment and maintenance of an effective learning environment. Cross-listed with ELED 5200. **Semester Hours: 3 to 3**

SECE 5300 - Introductory Curriculum and Methods in Secondary Mathematics

Surveys secondary mathematics curriculum and methods for pre-service teachers. Topics include planning lessons, motivation, grading, constructing tests, problem solving, teaching aids, expository and discovery lessons, teaching concepts, procedures and pr **Semester Hours: 3 to 3**

SECE 5340 - Multicultural Science Education

This course examines literature in science education related to multicultural issues, topics will be framed by an understanding of equity in diverse, urban classrooms and how it informs curriculum and instruction. Cross-listed with ENVS 5340. **Semester Hours: 3 to 3**

SECE 5350 - Issues and Problems in Science Education

Recent developments in theory, curriculum, methods, and materials in secondary science, examined for their contribution to the objectives of science education. **Semester Hours: 3 to 3**

SECE 5400 - Curriculum in Secondary Mathematics

Investigates curriculum in middle and high school mathematics, development, history and trends, and pertinent research. Participants construct and share curriculum relevant to their interest. **Semester Hours: 3 to 3**

SECE 5401 - Assessment in Mathematics Education

Curriculum-based assessment covering nature of assessment and its relation to evaluation and grading; teacher-made assessments; validity and authentic assessment; techniques for assessing learning of mathematical concepts, procedures, and problem solving. **Semester Hours:** 3 to 3

SECE 5410 - Advanced Methods and Strategies in Secondary Mathematics

An in-depth investigation of specific methods and strategies suitable for teaching mathematics for middle and senior high schools. Participants model and share various strategies, including the expository, collaborative discovery, laboratory, and Socratic **Semester Hours:** 3 to 3

SECE 5411 - Mathematics Education and Gender

Investigates gender-inclusive curriculum and teaching methods, equity and assessment, mathematical life histories, women in mathematics history, women's individual development and voice, single sex programs, and gender differences. **Semester Hours:** 3 to 3

SECE 5417 - Structure of Rational Numbers

Focuses on pedagogical practices that use multiple solution strategies to examine the structure of rational numbers. The assigned problems engage elementary and secondary teachers in investigation of mathematical equivalence, properties, unitization, par **Semester Hours:** 3 to 3

SECE 5418 - Mathematical Modeling

Elementary and secondary teachers explore settings where mathematics is utilized in everyday activities. Teachers create mathematical models to describe events or situations in the world and use a variety of modeling strategies to solve problems. Prereq: **Semester Hours:** 3 to 3

SECE 5419 - Exploring the Structure of Geometry Using Technology

Develops elementary and secondary teachers' conceptual understanding of geometric properties theorems and axiomatic systems through dynamic computer software investigations. Using the software enhances and extends teachers' ability to solve complex probl **Semester Hours:** 3 to 3

SECE 5420 - Teaching Mathematics to Low Achievers

Problems and characteristics of low achievers, motivation, attitudes, scaffolding with available materials, programs for low achievers, self-esteem, mathematics laboratory and activity approach to teaching mathematics. Appropriate for all grades. **Semester Hours:** 3 to 3

SECE 5430 - Teaching Aids in Mathematics Education

Examination, production, and use of manipulative aids, audiovisual aids, and other materials for teaching mathematics. Open to elementary and secondary teachers. **Semester Hours:** 3 to 3

SECE 5440 - Topics in Mathematics Education

An in-depth study of topics such as computers, testing, learning theory and mathematics laboratories. (May be repeated as topics vary.) **Semester Hours:** 3 to 3

SECE 5460 - Secondary Social Studies Methods and Curriculum Design

Recent developments in theory and materials in the social studies are examined, and present practices are analyzed for their contribution to general goals of social studies education. Appropriate for secondary teachers and elementary teachers with a speci **Semester Hours:** 3 to 3

SECE 5464 - Teaching About Ethnicity, Race and Prejudice

Designed to introduce the nature of racial and ethnic groups, prejudice, discrimination and ethno violence. It also includes the teaching about these and related topics and deals with resolving problems of intergroup relations in schools and institutional **Semester Hours:** 3 to 3

SECE 5465 - Teaching Critical Issues in Social Studies: An Interdisciplinary Approach

An in-depth study of critical social issues related to global or international; ethnicity, race, gender and minorities; cross-cultural studies; and current societal problems. Requires an interdisciplinary approach and covers the structure of the social sc **Semester Hours:** 3 to 3

SECE 5480 - Museum Studies in Paleontology

A practical laboratory-based course covering aspects of museum studies related to paleontological collections. Students learn how to stabilize and prepare bones removed from fossil quarries; learn molding and casting techniques for bones and fossils; assi **Semester Hours:** 3 to 3

SECE 5490 - Middle School Curriculum

Explores the unique curriculum requirements of transient youth. Topics to be addressed include team teaching, interdisciplinary curricula, flexible scheduling, basic skills development, guidance function, fine arts, practical arts, industrial arts, career **Semester Hours:** 3 to 3

SECE 5500 - The Nature of Science

This course is a critical exploration of science and scientific knowledge using an epistemological approach to ask (and possibly answer) questions about sociological issues in science and implications for science research, teaching and learning. Cross-listed with ENVS 5500.

Semester Hours: 3 to 3

SECE 5510 - Teacher Leadership: Theory to Reality

Working with colleagues in schools to make a difference as a team member and a change agent requires knowledge and skills that are "more than teachers, yet different from administrators" (Danielson, 2006). This course will provide teachers with skill buil **Semester Hours:** 3 to 3

SECE 5520 - Teacher Leadership: Essential Knowledge

Teacher leaders need expertise about what constitutes a quality curriculum and how best to guide others to develop lessons with assessments that reflect essential standards. They use culturally responsive and differentiated teaching strategies to assure t **Semester Hours:** 3 to 3

SECE 5530 - Teacher Leadership: Vital Skills

Teacher leaders need skills in collaboration, facilitation and coaching in order to work with colleagues in ways that will optimally impact student learning. This course will provide theory and practice in models of adult learning, professional development **Semester Hours:** 3 to 3

SECE 5540 - Foundations of School Health Education

This course is an overview of the principles of behavior theory as they relate to health education in both theory and practice. The course will examine the characteristics of effective school-based health education programs. Issues of ethnicity, culture **Semester Hours:** 3 to 3

SECE 5550 - Curriculum Materials in Health Education

This course will support the application of behavior theory as it applies to specific health content knowledge and skills. Special attention will be given to the skills, instructional strategies, and techniques needed to develop a culturally responsive **Semester Hours:** 3 to 3

SECE 5560 - Health Education Teaching Practices

The course provides an overview of health education teaching and learning strategies for use in school settings. Action research will be introduced and utilized as a method to examine current teaching practices. Role-play, student assessment development **Semester Hours:** 3 to 3

SECE 5650 - Environmental Education

Theory and practice of conservation education, which include use of resource personnel and the study of curricular and instructional development. Field experiences are incorporated. Primarily oriented to elementary and junior high school. **Semester Hours:** 3 to 3

SECE 5660 - Energy Education

Explores current energy problems. Students examine such topics as fuels from plants, fuels from wastes, fossil fuels, nuclear energy, wind energy, geothermal energy, solar energy and energy conservation. Included is a demonstration of available educational **Semester Hours:** 3 to 3

SECE 5780 - Storytelling

Explores the history, function, philosophy, and techniques of storytelling. This class also includes collecting, selecting, preparing, developing, and delivering stories. Research and resources are emphasized. Cross-listed with ELED 5780. **Semester Hours:** 1 to 4

SECE 5800 - Curriculum Workshop for Secondary Teachers

Opportunity to construct curriculum relevant to teachers' interests. Topics and credit hours vary. **Semester Hours:** 0.5 to 4

SECE 5840 - Independent Study: SECE

Semester Hours: 1 to 4

SECE 5910 - Advanced Practicum in Teaching

This course is not to be used as independent study, but is to be used by students approved in advance by the director of teacher education. This course fulfills the student teaching

requirement for students seeking a second endorsement. Prereq: Permission **Semester Hours: 1 to 4**

SECE 5920 - Readings in Secondary Education

Semester Hours: 1 to 4

SECE 5930 - Internship in Secondary Education

Semester Hours: 3 to 3

SECE 5950 - Master's Thesis

Semester Hours: 1 to 8

SECE 6100 - Seminar in Secondary Education

Students work on individual topics and report orally and in writing. Prereq: Permission of instructor. **Semester Hours: 3 to 3**

SECE 6110 - Science and Math Curriculum Studies

Students examine frameworks for curriculum design, discuss the psychological and philosophical foundations of curricula, and analyze the curriculum that they use in their own teaching. Students synthesize what teachers must do in order to effectively imp **Semester Hours: 3 to 3**

SECE 6120 - International Perspectives on the Curriculum

Considers schooling patterns in the U.S., the U.K., Japan, Australia, and several European countries, examining different approaches to curriculum issues in relation to social, historical, and economic factors. Prereq: FNDS 5500 or permission of instructo **Semester Hours: 3 to 3**

SECE 6840 - Independent Study: SECE

Semester Hours: 1 to 4

SECE 6910 - Geology Field Study in Hawaii for Teachers

Integrated summer field study course in Hawaii with emphasis on science education. Topics include: structural geology/volcanism, marine biology or oceanography, botany, natural energy, astronomy and human interaction. Participants are involved in hands-on **Semester Hours: 3 to 3**

SECE 6950 - Master's Thesis

Semester Hours: 4 to 4

Social Justice Courses (SJUS)

SJUS 2000 - Democratic Participation and Social Justice

Examines how well the United States, Colorado and Denver are doing in addressing issues of social justice, such as inequality and environmental degradation. Explores various modes of democratic participation -- electoral politics, community activism, and lifestyle changes -- in advancing social justice. **Semester Hours:** 3 to 3

SJUS 2010 - Social Justice: Theories, Narratives, and Technologies

How can citizens of a democracy address social justice issues? This course examines theoretical perspectives relevant to social justice, the narratives which express and question social order, and the technologies which alternately shape and reflect local, regional, and global cultures.

Semester Hours: 3 to 3

SJUS 3939 - Internship

Internship/experiential learning involving work in the community that is centered upon social justice and which includes a reflective component and some type of public dissemination.

Prereq: Junior or senior standing and 3.0 GPA. **Semester Hours:** 3 to 3

SJUS 4000 - Social Justice Capstone

Students design and carry out research projects that address important civic issues in collaboration with community partners and present their findings to the partners and academic community. This course also involves reflection on social justice means and goals. Prereq:

Junior standing. **Semester Hours:** 3 to 3

SJUS 4840 - Independent Study

Semester Hours: 3 to 3

Sociology Courses (SOCY)

SOCY 1001 - Introduction to Sociology

A survey course in which the main concepts that define the sociological perspective are presented, and a picture of society is provided by examining major social institutions and forms of social organization within society. **Semester Hours:** 3 to 3

SOCY 1050 - Analysis of Modern Society

Examines various sociological views of modern society, including those of Lundberg, Mills, Riesman, Goffman, Sorokin, Cohen and others. **Semester Hours:** 3 to 3

SOCY 1111 - Freshman Seminar

Semester Hours: 1 to 3

SOCY 2462 - Introduction to Social Psychology

Studies the development and functioning of persons, especially within a group context, and the dynamics of small groups. Emphasis is on import of symbols for human behavior, development of self-concepts, and the processes of competition and cooperation in group dynamics.

Semester Hours: 3 to 3

SOCY 3001 - Urban Sociology

The city and urban society are examined in terms of social structure, residential and institutional patterning, process of interaction, demographic processes, and patterns of growth and change. Prereq: SOCY 1001 or permission of instructor. Cross-listed with ETST 3001.

Semester Hours: 3 to 3

SOCY 3010 - Sociology of Human Sexuality

Increases the understanding of differences in views of sexuality, specifically the link between sex and reproduction and its role as the motivation for gender roles and sex acts. Explores the history of sexuality, cross-cultural studies and primate modeling. Cross-listed with WGST 3010.

Semester Hours: 3 to 3

SOCY 3020 - Race and Ethnicity in the U.S.

A sociological examination of race and ethnicity in contemporary U.S. society. Includes a focus on the nature and causes of prejudice and discrimination. Dominant-minority relations are examined, with an emphasis on current status of minority groups and issues. Prereq: Six hours of social science. **Semester Hours:** 3 to 3

SOCY 3030 - Social Change

Process of change in Western societies and its effects on the individual, communities, and economic and political institutions. Prereq: SOCY 1001 or permission of the instructor.

Semester Hours: 3 to 3

SOCY 3040 - Drugs, Alcohol & Society

Explores our culture's relationship with drugs and alcohol from a sociological perspective, investigating all spheres of substance use: recreational, medicinal, instrumental & religious. Examines our long turbulent history with these chemicals, and the ways in which they have shaped our society. **Semester Hours:** 3 to 3

SOCY 3050 - Sociology of Education

Topics covered include school socialization, A.D.D. diagnoses and drugs, special education, effects of standardized testing, race, ethnicity, gender, poverty in schools, public policies and funding, teacher burnout, student aspirations, secondary education and local issues in education. Prereq: SOCY 1001 or permission of the instructor. **Semester Hours:** 3 to 3

SOCY 3080 - Sex and Gender

Causes and consequences of sex role differentiation at the individual, group and societal levels. Current issues related to changing norms and values concerning gender in modern society are examined. Cross-listed with WGST 3080. **Semester Hours:** 3 to 3

SOCY 3111 - Research Methods

Design of social research. Application of statistical techniques and procedures to social phenomena. Prereq: SOCY 1001 or permission of the instructor. **Semester Hours:** 3 to 3

SOCY 3121 - Statistics

Quantitative techniques used in analyzing social phenomena. Prereq: MATH 1070 or permission of the instructor. **Semester Hours:** 4 to 4

SOCY 3150 - History of Sociological Theory

An analysis of the major contributions and determinants of earlier social analysts to present-day social thought and analysis of pertinent sociological issues. Prereq: Junior standing. **Semester Hours:** 3 to 3

SOCY 3160 - Contemporary Sociological Theory

The explication of various conceptual approaches to the problems of social order, societal functioning and integration, social conflict, and social structural change by the examination of the work of contemporary theorists. Prereq: SOCY 3150 or permission of the instructor. **Semester Hours:** 3 to 3

SOCY 3297 - Social History of Asian Americans

Introductory-level course surveys the social history of Asian American groups from the mid-19th century to the present. Examines immigration patterns, the development of communities, social and economic problems, and anti-Asian movements and activities. Cross-listed with ETST 3297. **Semester Hours:** 3 to 3

SOCY 3300 - Advanced Social Problems

Social problems are the subject of controversy, such as that surrounding controversy may swirl around definitions (e.g., the social net and the poverty line), around degree of seriousness, about

"causes," and inevitably about solutions. Controversy also centers on the "proper" role of the social theorist and social scientist, observer only or activist as well? While other disciplines study social problems, they are the very heart of the sociology perspective, and the wellspring of sociological inquiry. **Semester Hours:** 3 to 3

SOCY 3440 - Medical Sociology

This course covers key issues in population health and emphasizes how sociological perspectives both challenge and augment biomedical perspectives on health and health care. We also discuss the social causes and consequences of race/ethnic, sex, and socioeconomic disparities in health. Cross-listed with PBHL 3440. **Semester Hours:** 3 to 3

SOCY 3460 - The Social Psychology of Intergroup Relations

Study of those aspects of human interaction which deal with individuals perceiving themselves, and/or being perceived by others, as members of a social category. Focuses on the dynamics of intergroup conflicts--how they arise, what course they may take, and how they might be resolved. Prereq: Six hours of sociology, psychology, or any combination of the two. **Semester Hours:** 3 to 3

SOCY 3490 - Criminology

Theories, nature and causes of crime as a social phenomenon. Processes of making laws, breaking laws, and reaction toward the breaking of laws. **Semester Hours:** 3 to 3

SOCY 3500 - Topics in Sociology

Special topics in sociology to be selected by the instructor. Note: Can be taken more than once when topics vary. **Semester Hours:** 1 to 3

SOCY 3510 - Topics in Sociology

Semester Hours: 1 to 3

SOCY 3520 - Topics in Sociology

Semester Hours: 1 to 3

SOCY 3530 - Topics in Sociology

Semester Hours: 1 to 3

SOCY 3540 - Topics in Sociology

Semester Hours: 1 to 3

SOCY 3550 - Topics in Sociology

Semester Hours: 1 to 3

SOCY 3560 - Death and Dying

Designed to examine the attitudes, customs, and institutions related to death and dying in contemporary American society. Several theoretical approaches from a sociological perspective are utilized, as well as historical and cross-cultural data. **Semester Hours:** 3 to 3

SOCY 3600 - Social Relations

The course has two aims: first, to improve the student's abilities to observe, analyze, and understand his own behavior and that of others in everyday interpersonal situations; and second, to improve his ability to see the small group as a social system. The student is expected to demonstrate his abilities by effective participation in his group as well as in periodic written analyses. Prereq: Junior standing or permission of the instructor. **Semester Hours:** 3 to 3

SOCY 3650 - Sociology of Music

Focuses on the meaning/use of music in society. Explores censorship, organization of the recording industry, sociocultural contexts in which music is produced/distributed/listened to and the relationship between music and technology along with musical applications and associations. **Semester Hours:** 3 to 3

SOCY 3700 - Sociology of the Family

The family as a social institution. Historical development and contemporary cross-cultural analysis, with emphasis on the contemporary American family. Cross-listed with WGST 3700. **Semester Hours:** 3 to 3

SOCY 3710 - Sociology of Global Issues

Social issues such as race relations, social inequality, urbanization, family dynamics and global competition are examined using different theoretical perspectives. Existing policies are used to study "private troubles" and "public issues" and the relationships among global, national and local levels. Prereq: SOCY 1001 or undergraduate advisor's permission. **Semester Hours:** 3 to 3

SOCY 3840 - Independent Study: SOCY

Semester Hours: 1 to 3

SOCY 3939 - Internship

Designed experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

SOCY 4040 - Social Determinants of Health

This course explores social inequalities in physical and mental health, the illness experience, the healing professions, health policy, relations between providers and patients, and the structure, access to, and financing of health care organizations, wit **Semester Hours:** 3 to 3

SOCY 4101 - Applied Statistics Using SAS and SPSS I

Teaches the practical statistical tools social scientists use to analyze real-world problems. Split into four modules, each taught by a different instructor. The first module introduces SAS and SPSS; modules 2-4 are problem-based and cover topics such as Anova, multivariate regression, and cluster analysis. Prereq: SOCY 3121 or permission of the instructor. **Semester Hours:** 3 to 3

SOCY 4102 - Applied Statistics Using SAS and SPSS II

Students use the skills they learned in the previous semester to analyze a social issue of their choosing and present their findings. Note: A continuation of SOCY 4101. In addition to lectures, weekly one-on-one meetings between faculty and students are required. Prereq: SOCY 4101.

Semester Hours: 3 to 3

SOCY 4110 - Sociology of Health Care

Examines the health care institutions of the United States. Issues such as the rising cost, the effect of class, racial and gender inequality, the professionalization and monopolization of roles, the current restructuring, construction of illness and health, managed care, health care for profit and ethics of health care decisions. Cross-listed with SOCY 5110. **Semester Hours:** 3 to 3

SOCY 4120 - Popular Culture and the American Family

A course in family sociology in which the ways the American family is portrayed in the mass media and popular culture are studied. Even though the historical evolution of this reciprocal relationship is not ignored, the focus is on today's relevant issues. Prereq: Junior standing or permission of the instructor. Cross-listed with SOCY 5120. **Semester Hours:** 3 to 3

SOCY 4220 - Population Change and Analysis

Concepts of population change, methods of analysis, and applications to contemporary social issues. Topics include age and sex distributions, fertility, mortality, and migration, and the social causes and consequences of these phenomena. Prereq: Junior standing or permission of the instructor. Cross-listed with SOCY 5220. **Semester Hours:** 3 to 3

SOCY 4280 - Urban Social Space

The city simultaneously attracts and repulses us. It has openness and beauty; it is also cramped, crowded, and ugly. The city provides us with freedoms undreamed of in other times and places, yet it restricts our movements and activities. This course examines how different professionals have viewed the city, with particular attention to the spaces in the city. Both social and physical spaces are discussed. Prereq: SOCY 1001 or permission of the instructor. **Semester Hours:** 3 to 3

SOCY 4290 - Aging, Society and Social Policy

The role of the aged in today's society. Emphasizes interrelationships of the aged with the family, community, work, retirement and leisure. Prereq: Junior standing or permission of the instructor. **Semester Hours:** 3 to 3

SOCY 4340 - Juvenile Delinquency

Factors involved in delinquent behavior. Problems of adjustment of delinquents, and factors in treatment and post-treatment adjustment. Prereq: 6 hours of sociology or criminal justice or permission of the instructor. **Semester Hours:** 3 to 3

SOCY 4440 - Social Inequality

Investigates the distribution of wealth, income, social class and economic power in the United States with a focus on social institutions and factors that shape inequality. Prereq: Junior

standing or permission of the instructor. Cross-listed with SOCY 5440. **Semester Hours:** 3 to 3

SOCY 4460 - Hate Groups and Group Violence

Social sciences help us understand the phenomena of hate groups and group violence and contribute toward their elimination. Examples are examined using theoretical perspectives on different levels of analysis and within different areas of research. Prereq: Junior standing or permission of the instructor. Cross-listed with SOCY 5680. **Semester Hours:** 3 to 3

SOCY 4475 - Self and Identity

A course in social psychology focusing on individuals in social interaction. Focuses on self-conception, identity presentation of self, and self and emotion management. Major theories and research in social psychology literature are examined. Prereq: Junior standing or permission of the instructor. Cross-listed with SOCY 5475. **Semester Hours:** 3 to 3

SOCY 4510 - Advanced Study of Social Change

Historical change of societies from one epoch to another (e.g., from feudalism to capitalism) and from one stage to another (e.g., competitive capitalism to monopoly capitalism), with focus on attendant social processes such as development of the working class, the rise of the corporation, the expanding role of the state, the irrationality of growth, and economic crises and imperialism. Prereq: SOCY 1001 or permission of the instructor. **Semester Hours:** 3 to 3

SOCY 4520 - Collective Behavior

Social, cultural, and psychological factors affecting behavior in unpredictable situations. An in-depth analysis of social change through such phenomena as riots, crowds, publics and social movements. Prereq: SOCY 1001 or permission of the instructor. **Semester Hours:** 3 to 3

SOCY 4610 - Sociology of Religion

An intensive review and analysis of the fundamental tenets of religion as a social institution, with emphasis on present-day religious cults, their beliefs and activities in society. Prereq: SOCY 1001 or permission of the instructor. Cross-listed with SOCY 5610, RLST 4020, 5020. **Semester Hours:** 3 to 3

SOCY 4640 - Sociology of Childhood and Adolescence

An in-depth overview of the theories and research regarding the life course understanding of infancy, childhood and adolescence. Children's lives and cultures in relation to adults and their transition from childhood to adolescence are studied. Prereq: Junior standing or permission of the instructor. Cross-listed with SOCY 5640. **Semester Hours:** 3 to 3

SOCY 4650 - Sociology of Adulthood and Aging

An in-depth overview of the theories and research using the life course understanding of adulthood and aging. Adult's lives, transition from adulthood to elderly status, and social policy issues are also studied. Prereq: Junior standing or permission of the instructor. Cross-listed with SOCY 5650. **Semester Hours:** 3 to 3

SOCY 4690 - Crime and Inequality Over the Life Course

A life-course perspective on issues of inequality and crime. Studies transitions, trajectories and turning points as key features of the life course. Considers how life inequalities and criminal behavior are shaped by the timing of experiences, historical and geographic contexts, other people's lives, and human agency. **Semester Hours:** 3 to 3

SOCY 4700 - Sociology of Law

Consideration of the formulation, interpretation, and legitimacy of legal rules within the context of social organization. The examination of a major social institution in modern society.

Semester Hours: 3 to 3

SOCY 4770 - Advanced Topics in Sociology

Advanced study of special topics in sociology to be selected by the instructor. Note: May be repeated for credit when topics vary. Prereq: Junior standing or permission of the instructor. Cross-listed with SOCY 5770. **Semester Hours:** 3 to 3

SOCY 4771 - Advanced Topics in Sociology

Advanced study of special topics in sociology to be selected by the instructor. Note: May be repeated for credit when topics vary. Prereq: Junior standing or permission of the instructor. Cross-listed with SOCY 5771. **Semester Hours:** 3 to 3

SOCY 4772 - Advanced Topics in Sociology

Advanced study of special topics in sociology to be selected by the instructor. Note: May be repeated for credit when topics vary. Prereq: Junior standing or permission of the instructor. Cross-listed with SOCY 5772. **Semester Hours:** 3 to 3

SOCY 4773 - Advanced Topics in Sociology

Advanced study of special topics in sociology to be selected by the instructor. Note: May be repeated for credit when topics vary. Prereq: Junior standing or permission of the instructor. Cross-listed with SOCY 5773. **Semester Hours:** 3 to 3

SOCY 4774 - Advanced Topics in Sociology

Advanced study of special topics in sociology to be selected by the instructor. Note: May be repeated for credit when topics vary. Prereq: Junior standing or permission of the instructor. Cross-listed with SOCY 5774. **Semester Hours:** 3 to 3

SOCY 4780 - Violence in Relationships

Course focuses on the study of violence among individuals involved in intimate relationships; factors in society such as norms, laws and institutions that are related to creating violence among intimates; and social policies, prevention, intervention and treatment programs. Prereq: SOCY 1001, or a social science course. Cross-listed with SOCY 5780. **Semester Hours:** 3 to 3

SOCY 4831 - Senior Seminar

Seminar for senior sociology majors considering important concepts, issues, and problems in sociology. Prereq: Junior standing and SOCY 1001. **Semester Hours:** 3 to 3

SOCY 4840 - Independent Study: SOCY

Semester Hours: 1 to 3

SOCY 4910 - Research Practicum

Practical experiences for undergraduates in application of principles of research design and data processing to a social research problem selected by the instructor. Prereq: Permission of instructor required. **Semester Hours:** 1 to 3

SOCY 5000 - Professional Seminar: Sociological Inquiry

Orients new graduate students to key elements of graduate and professional levels of sociological inquiry. Topics include analyses of basic theoretical and epistemological issues, the history and contemporary development of the discipline, essential research programs and an introduction to faculty research. **Semester Hours:** 3 to 3

SOCY 5014 - Classical Sociological Theory

Examines the emergence and development of sociological ideas, concepts, and principles. Introduces students to the historical and social contexts in which theories of society are instituted. Particular attention is paid to the importance of and implication to contemporary sociology made by classical sociologists such as Durkheim, Marx, and Weber. Prereq: SOCY 4150. **Semester Hours:** 3 to 3

SOCY 5015 - Contemporary Sociological Theory

The explication of various conceptual approaches to the problem of social order, societal functioning and integration, social conflict, and social structural change by the examination of the work of contemporary theorists. Note: Required for M.A. students in sociology. Prereq: Must have successfully completed an undergraduate course in contemporary sociological theory and SOCY 5014. **Semester Hours:** 3 to 3

SOCY 5024 - Seminar: Research Methods I

Problems and procedures in research design, data collection and processing. Note: Required for M.A. graduate students in sociology. **Semester Hours:** 3 to 3

SOCY 5040 - Social Determinants of Health

This course explores social inequalities in physical and mental health, the illness experience, the healing professions, health policy, relations between providers and patients, and the structure, access to, and financing of health care organizations, with some cross-national discussions.

Prereq: Graduate standing. Cross-listed with SOCY 4040, PBHL 4040, HBSC 4040/5040.

Semester Hours: 3 to 3

SOCY 5110 - Sociology of Health Care

Examines the health care institutions of the United States. Issues such as the rising cost, the effect of class, racial and gender inequality, the professionalization and monopolization of roles, the current restructuring, construction of illness and health, managed care, health care for profit and ethics of health care decisions. Cross-listed with SOCY 4110. **Semester Hours:** 3 to 3

SOCY 5120 - Popular Culture and the American Family

A course in family sociology in which the ways American family is portrayed in the mass media and popular culture are studied. Even though the historical evolution of this reciprocal relationship is not ignored, the focus is on today's relevant issues. Cross-listed with SOCY 4120.

Semester Hours: 3 to 3

SOCY 5183 - Seminar: Quantitative Data Analysis

A research-oriented seminar stressing the utilization of social data already collected in the test or generation of sociological theory. Note: Required for M.A. graduate students in sociology.

Semester Hours: 3 to 3

SOCY 5220 - Population Change and Analysis

Concepts of population change, methods of analysis, and applications to contemporary social issues. Topics include age and sex distributions, fertility, mortality, and migration, and the social causes and consequences of these phenomena. Cross-listed with SOCY 4220.

Semester Hours: 3 to 3

SOCY 5430 - Societies in Transition

A description and analysis of changing social structures and social relationships as a response to technological innovation and change.

Semester Hours: 3 to 3

SOCY 5440 - Social Inequality

Investigates the distribution of wealth, income, social class and economic power in the United States with a focus on social institutions and factors that shape inequality. Prereq: Junior standing or permission of the instructor. Cross-listed with SOCY 4440.

Semester Hours: 3 to 3

SOCY 5475 - Self and Identity

A course in social psychology focusing on individuals in social interaction. Focuses on self-conception, identity presentation of self, and self and emotion management. Major theories and research in social psychology literature are examined. Cross-listed with SOCY 4475.

Semester Hours: 3 to 3

SOCY 5480 - Graduate Special Topics

Semester Hours: 1 to 3

SOCY 5500 - Graduate Special Topics

Semester Hours: 1 to 3

SOCY 5550 - Seminar: Sociology of the Family

An intensive review and analysis of the family as a social institution.

Semester Hours: 3 to 3

SOCY 5610 - Sociology of Religion

An intensive review and analysis of the fundamental tenets of religion as a social institution, with emphasis on present-day religious cults, their beliefs and activities in society. Cross-listed with SOCY 4610, RLST 4020, 5020. **Semester Hours:** 3 to 3

SOCY 5640 - Sociology of Childhood and Adolescence

An in-depth overview of the theories and research regarding the life course understanding of infancy, childhood and adolescence. Children's lives and cultures in relation to adults and their transition from childhood to adolescence are studied. Cross-listed with SOCY 4640. **Semester Hours:** 3 to 3

SOCY 5650 - Sociology of Adulthood and Aging

An in-depth overview of the theories and research using the life course understanding of adulthood and aging. Adult's lives, transition from adulthood to elderly status, and social policy issues are also studied. Cross-listed with SOCY 4650. **Semester Hours:** 3 to 3

SOCY 5660 - Seminar: Social Psychology

Sociological approaches to the study of the self, role theory, persons in situations, identifications, socialization, and other characteristics of persons in society. **Semester Hours:** 3 to 3

SOCY 5680 - Hate Groups and Group Violence

Social sciences help us understand the phenomena of hate groups and group violence and contribute toward their elimination. Examples are examined using theoretical perspectives on different levels of analysis and within different areas of research. Cross-listed with SOCY 4460. **Semester Hours:** 3 to 3

SOCY 5690 - Crime and Inequality Over the Life Course

A life-course perspective on issues of inequality and crime. Studies transitions, trajectories and turning points as key features of the life course. Considers how life inequalities and criminal behavior are shaped by the timing of experiences, historical and geographic contexts, other people's lives, and human agency. **Semester Hours:** 3 to 3

SOCY 5750 - Seminar: Criminology

An intensive review and analysis of the literature and research dealing with sociology of crime in modern society. **Semester Hours:** 3 to 3

SOCY 5770 - Advanced Topics in Sociology

Advanced study of special topics in sociology to be selected by the instructor. Note: May be repeated for credit when topics vary. Cross-listed with SOCY 4770. **Semester Hours:** 3 to 3

SOCY 5771 - Advanced Topics in Sociology

Advanced study of special topics in sociology to be selected by the instructor. Note: May be repeated for credit when topics vary. Cross-listed with SOCY 4771. **Semester Hours:** 3 to 3

SOCY 5772 - Advanced Topics in Sociology

Advanced study of special topics in sociology to be selected by the instructor. Note: May be repeated for credit when topics vary. Cross-listed with SOCY 4772. **Semester Hours:** 3 to 3

SOCY 5773 - Advanced Topics in Sociology

Advanced study of special topics in sociology to be selected by the instructor. Note: May be repeated for credit when topics vary. Cross-listed with SOCY 4773. **Semester Hours:** 3 to 3

SOCY 5774 - Advanced Topics in Sociology

Advanced study of special topics in sociology to be selected by the instructor. Note: May be repeated for credit when topics vary. Cross-listed with SOCY 4774. **Semester Hours:** 3 to 3

SOCY 5780 - Violence in Relationships

Course focuses on the study of violence among individuals involved in intimate relationships; factors in society such as norms, laws and institutions that are related to creating violence among intimates; and social policies, prevention, intervention and treatment programs. Prereq: SOCY 1001, or a social science course. Cross-listed with SOCY 4780. **Semester Hours:** 3 to 3

SOCY 5840 - Independent Study: SOCY

Semester Hours: 1 to 3

SOCY 5910 - Research Practicum

Semester Hours: 1 to 3

SOCY 5920 - Guided Readings in Sociology

Semester Hours: 1 to 3

SOCY 5930 - Internship in Sociology

Semester Hours: 1 to 6

SOCY 5939 - Internship

Semester Hours: 1 to 6

SOCY 5955 - Master's Thesis

Semester Hours: 1 to 6

SOCY 5964 - Master's Report

Semester Hours: 1 to 3

Spanish Courses (SPAN)

SPAN 1000 - Introduction to Cultures of the Spanish Speaking World

Introduces students to the Spanish-speaking cultures of Spain, Latin America, and the United States through a historical overview and a focus on contemporary politics and culture. Note: Taught in English. **Semester Hours:** 3 to 3

SPAN 1010 - Beginning Spanish I

Introduces basic Spanish pronunciation and grammar, useful vocabulary and idioms. Readings and class discussions relating to the Hispanic world. Note: Students may not enroll in any lower division (1000/2000) language skills course in which their level of proficiency exceeds that of the course. Students placing into a course through any means other than following the regular sequence must consult with an appropriate faculty member of the Dept. of Modern Languages prior to enrollment. **Semester Hours:** 5 to 5

SPAN 1011 - Intensive Spanish

SPAN 1011/1021 combines both semesters of the first year, and meets the needs of highly motivated students of the language and culture. Prereq: Students having studied Spanish previously should not enroll in SPAN1011/1021 without first consulting a department advisor. Cross-listed with SPAN 1021. **Semester Hours:** 5 to 5 **When Offered:** *SUMMER*

SPAN 1020 - Beginning Spanish II

(Continuation of SPAN 1010.) Further development of listening, speaking, reading and writing skills. Note: Students may not enroll in any lower division (1000/2000) language skills course in which their level of proficiency exceeds that of the course. Students placing into a course through any means other than following the regular sequence must consult with an appropriate faculty member of the Dept. of Modern Languages prior to enrollment. Prereq: SPAN 1010 with grade of 'C' (2.0) or higher. **Semester Hours:** 5 to 5

SPAN 1021 - Intensive Spanish

SPAN 1011/1021 combines both semesters of the first year, and meets the needs of highly motivated students of the language and culture. Prereq: Students having studied Spanish previously should not enroll in SPAN 1011/1021 without first consulting a department advisor. Cross-listed with SPAN 1011. **Semester Hours:** 5 to 5 **When Offered:** *SUMMER*

SPAN 1111 - Freshman Seminar

Semester Hours: 1 to 3

SPAN 1995 - Travel Study

For students doing travel study in a Spanish-speaking country; register through the Office of International Education. **Semester Hours:** 1 to 15

SPAN 2110 - Second Year Spanish I

Continues the development of skills acquired in 1010 and 1020. Readings deal with Hispanic culture and current topics from Spain and Latin America. Development of informal oral and

written expression. Note: Students may not enroll in any lower division (1000/2000) language skills course in which their level of proficiency exceeds that of the course. Students placing into a course through any means other than following the regular sequence must consult with an appropriate faculty member of the Dept. of Modern Languages prior to enrollment. Prereq: SPAN 1020 with a grade of 'C' (2.0) or higher. **Semester Hours:** 3 to 3

SPAN 2120 - Second Year Spanish II

Continues the development of skills acquired in SPAN 1010, 1020 and 2110, together with a review of grammar. Readings deal with Hispanic culture and literature. Development of informal oral and written expression. SPAN 2120 satisfies the fourth-semester language requirement at most graduate schools. Note: Students may not enroll in any lower division (1000/2000) language skills course in which their level of proficiency exceeds that of the course. Students placing into a course through any means other than following the regular sequence must consult with an appropriate faculty member of the Dept. of Modern Languages prior to enrollment. Prereq: SPAN 2110 with a grade of 'C' (2.0) or higher. **Semester Hours:** 3 to 3

SPAN 2125 - Spanish for Heritage Speakers I

Designed for native speakers with strong oral skills, but who need extra attention to writing, reading comprehension, grammatical knowledge and the vocabulary of formal Spanish. Complements and builds on the students' heritage language skills. Prereq: Native oral ability in Spanish. **Semester Hours:** 3 to 3

SPAN 2126 - Spanish for Heritage Speakers II

Continuation of SPAN 2125, designed for native speakers with strong oral skills, but who need extra attention to writing and grammatical knowledge and the vocabulary of formal Spanish. Compliments and builds on the student's heritage language skills. Prereq: SPAN 2125 or placement; native oral ability in Spanish. **Semester Hours:** 3 to 3

SPAN 2130 - Current Topics in the Spanish-Speaking World

A fourth-semester course (parallel to 2120) designed for students majoring or minoring in international affairs, but open to anyone wishing to continue the study of Spanish beyond 2110. Along with development of language skills and grammar review, class work involves contemporary topics in cultural, political, economic and social affairs. Prereq: SPAN 2110 with a grade of 'C' (2.0) or higher or placement exam. **Semester Hours:** 3 to 3

SPAN 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: 15 hours of 2.75 GPA. **Semester Hours:** 1 to 3

SPAN 2995 - Travel Study

For students doing travel study in a Spanish-speaking country; register through the Office of International Education. **Semester Hours:** 1 to 15

SPAN 3010 - Advanced Conversation and Composition I

Expansion and reinforcement of oral and written skills in Spanish at an advanced level, in a broad cultural context. Oral activities are individual and in groups. Topics are introduced through oral activities, and are then used for written assignments. Prereq: SPAN 2120 or 2130.

Semester Hours: 3 to 3

SPAN 3020 - Advanced Conversation and Composition II

(Continuation of SPAN 3010.) Development of oral and written skills in Spanish in preparation for taking other advanced courses. Topics of increasing complexity are selected from current publications in Spanish. Prereq: SPAN 3010. **Semester Hours:** 3 to 3

SPAN 3060 - Hispanic Phonetics: Theory and Practice

Explores the phonetics of spoken Spanish throughout the world. Theoretical content: classification of all Spanish sounds and how they are affected and change according to their phonetic environment and region. Practical features: pronunciation and strategies teaching English speakers to pronounce Spanish. Prereq: SPAN 3010 or upper division standing in Spanish. **Semester Hours:** 3 to 3

SPAN 3070 - Bilingual Communities: Spanish as a Language of Contact

Explores bilingualism by tracing the series of linguistic and ethnic contacts that converted Castilian from a Latin dialect to the language of the Spanish empire, the primary language of Latin America, and a fast-growing language in the United States. Prereq: SPAN 3010 for majors, or permission of instructor for non-majors. **Semester Hours:** 3 to 3

SPAN 3073 - Bilingual Communities: Spanish in a Global Setting

Taught in English; no major or minor credit. Studies Spanish as a language of contact. Emphasis is placed on Spanish in the United States, as well as bilingualism in Spain and Latin America.

Semester Hours: 3 to 3

SPAN 3082 - Introduction to Translation I

The first course in a two-semester sequence that introduces the methodology and practice of written translation. Thorough analysis of source texts precedes translation into target language. Students must demonstrate third-year competence in Spanish and advanced writing skills in English. Prereq: Upper division standing in Spanish. **Semester Hours:** 3 to 3

SPAN 3092 - Introduction to Translation II

Second course in a two-semester sequence (see SPAN 3082). Prereq: SPAN 3082, upper division standing in Spanish, or permission of instructor. **Semester Hours:** 3 to 3

SPAN 3100 - Culture and Civilization of Spain

Surveys the development of Spanish civilization -- the social, political, economic, religious, literary, and artistic life of Spain--within the framework of the Western tradition, and its later dissemination in the New World. Note: Taught in English; no major or minor credit. Prereq: Minimum of sophomore standing. **Semester Hours:** 3 to 3

SPAN 3212 - Spanish American Culture and Civilization

Surveys the social, political, economic, religious, literary, and artistic life of Spanish America from the conquest to the present. Note: Taught in Spanish for major and minor credit. Prereq: SPAN 2120 or 2130. **Semester Hours:** 3 to 3

SPAN 3213 - Contemporary Latin American Culture and Institutions

Introduction to contemporary Latin American culture and institutions, with emphasis on the social, economic and political institutions of Spanish-speaking countries. Prereq: SPAN 2120 or 2130. **Semester Hours:** 3 to 3

SPAN 3221 - Culture and Civilization of Spain I

From prehistoric times through Phoenician, Greek, Roman, and Visigothic eras to the Moorish invasion in 711; the Arab period; the Reconquest; the Catholic Kings; the Imperial Period; and the Inquisition. Prereq: Upper division standing in Spanish. **Semester Hours:** 3 to 3

SPAN 3222 - Culture and Civilization of Spain II

(Continuation of 3221.) Studies the social, intellectual, and artistic development of Spain from the time of the Bourbons (18th century) through the civil war of 1936, and the Franco regime to the restoration of democracy under Juan Carlos I and the present day. Prereq: Upper division standing in Spanish. **Semester Hours:** 3 to 3

SPAN 3223 - Contemporary Spanish Culture and Institutions

A study of contemporary Iberian culture, including an emphasis on modern business institutions and practices. This course can be applied to any Spanish major track but is specifically required for the International Language and Culture for the Professions track. Prereq: SPAN 2120 or 2130. **Semester Hours:** 3 to 3

SPAN 3225 - Special Topics In Hispanic Culture

Variable topics in advanced studies in Spanish and Latin American culture. Prereq: SPAN 2120 or 2130. **Semester Hours:** 3 to 3

SPAN 3230 - Ibero-American Cultures through Film

A study of the Ibero-American cultures through their most representative films. Films will be windows to access the complexities and the contradictions lived in Ibero-American countries regarding a set of contemporary issues, such as violence, linguistic diversity, religious beliefs, sexuality, politics, history, social class, and globalization. Prereq: SPAN 2120 or SPAN 2130, or consent of the instructor. **Semester Hours:** 3 to 3

SPAN 3252 - Introduction to the Study of Literature

The basic terms and skills needed to analyze both the themes and form of literary works, together with an introduction to research skills. All literary examples come from Hispanic literature. Note: SPAN 3252 is a prerequisite (previous or concurrent) to all other literature courses taught in Spanish. Prereq: SPAN 2120 or 2130 (or equivalent). **Semester Hours:** 3 to 3

SPAN 3300 - Twentieth Century Spanish Literature

The literature of Spain from the beginning of the 20th century to the present through short stories, novels, poems and plays. Prereq or coreq: SPAN 3252. **Semester Hours:** 3 to 3

SPAN 3310 - Spanish Writing and Grammar I

A close study of the structure of the language and practice in its written use. Note: Recommended for those intending to teach Spanish at the secondary level. Prereq: Upper division standing in Spanish. **Semester Hours:** 3 to 3

SPAN 3400 - Survey of Spanish Literature I

The most important works in the literature of Spain from the early Hispano-Arabic lyric poems through the golden age of the 17th century. Prereq or coreq: SPAN 3252. **Semester Hours:** 3 to 3

SPAN 3410 - Survey of Spanish Literature II

The most important works in the literature of Spain from the 18th century to the present. Prereq or coreq: SPAN 3252. **Semester Hours:** 3 to 3

SPAN 3510 - Survey of Spanish American Literature II

The most important works in the literature of Spanish America from the late 19th century to the present. Prereq or coreq: SPAN 3252. **Semester Hours:** 3 to 3

SPAN 3550 - Spanish American Short Story

The Spanish American short story from its beginnings in the romantic period of the 19th century to the present. Prereq or Coreq: SPAN 3252. **Semester Hours:** 3 to 3

SPAN 3700 - Spanish for International Business I

Development of proficiency in oral and written Spanish as used in business and industry throughout the Hispanic world, together with an increased awareness of social, economic, and political conditions affecting business transactions, particularly in long-term operations. Prereq: Upper division standing in Spanish. **Semester Hours:** 3 to 3

SPAN 3710 - Spanish for International Business II

(Continuation of SPAN 3700.) Further development of oral and written language proficiency, together with further examination of pertinent social, economic, and political conditions of the Hispanic world. Prereq: Upper division standing in Spanish; SPAN 3700 desirable. **Semester Hours:** 3 to 3

SPAN 3730 - Special Topics in Spanish for International Business

Variable topics not otherwise covered sufficiently in regular courses. Note: May be taken more than once, provided that the topic is different each time. Prereq: SPAN 3700. **Semester Hours:** 3 to 3

SPAN 3830 - Topics in Spanish Literature

Varying topics in Hispanic literature for students not able to read Spanish well. Note: Taught in English; no major or minor credit. May be taken more than once, provided that the topic is different each time. **Semester Hours:** 3 to 3

SPAN 3840 - Independent Study: SPAN

Semester Hours: 1 to 3

SPAN 3841 - Independent Study: SPAN

Semester Hours: 1 to 3

SPAN 3939 - Internship

Designed experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

SPAN 3970 - Topics in Spanish Literature

Varying topics in Hispanic literature appropriate the 3000 level, not otherwise covered by regular courses. Note: Taught in Spanish for major and minor credit. May be taken more than once, provided that the topic is different each time. Prereq: SPAN 3252. **Semester Hours:** 3 to 3

SPAN 3995 - Travel Study

For students doing travel study in a Spanish-speaking country; register through the Office of International Education. **Semester Hours:** 1 to 15

SPAN 4010 - History of the Spanish Language

Studies the history of the Spanish language, both internal and external, from the language's Latin roots to the present. Historical phonetics are emphasized, though all features of the language are discussed. Prereq for SPAN 4010: Upper division standing. Cross-listed with SPAN 5010. **Semester Hours:** 3 to 3

SPAN 4020 - Spanish Sociolinguistics

Studies the Spanish language in its social context. In addition to specific regional linguistic features, social factors such as geography, social class, politics, race, gender, economics, education and history are discussed as determiners of the linguistic landscape. Prereq: SPAN 3060. Cross-listed with SPAN 5020. **Semester Hours:** 3 to 3

SPAN 4060 - Dialects of the Spanish-Speaking World

Studies the geography of the Spanish language in those countries where it is spoken as a primary language. Includes a comparison of dialect features and a study of factors that contribute to the diversity of the Spanish language. Prereq: SPAN 3060. Cross-listed with SPAN 5060. **Semester Hours:** 3 to 3

SPAN 4070 - Spanish Applied Linguistics & Second Language Acquisition

This course is a survey of various areas of the field of linguistics in general (e.g. morphology, syntax, semantics, pragmatics, etc.) as well as specific aspects of the structure (and acquisition) of the Spanish language. Prereq: SPAN 3060 or 3070. Cross-listed with SPAN 5070. **Semester Hours:** 3 to 3

SPAN 4076 - Spanish in Colorado

A study of the Spanish language in its social context in Colorado and New Mexico. We will study historical factors as well as current social factors that contribute to the use of the Spanish language in this region. Prereq: SPAN 3060. Cross-listed with SPAN 5076. **Semester Hours:** 3 to 3

SPAN 4080 - Spanish in the United States

A study of the Spanish language in its social context as a language of the United States. In addition to studying bilingualism and language traits, factors such as race, gender, class, education, nationality, age, generation and language attitudes are considered. Prereq: SPAN 3060. Cross-listed with SPAN 5080. **Semester Hours:** 3 to 3

SPAN 4110 - Contemporary Spanish Literature

Major works published since the Spanish Civil War, which ended in 1939. Prereq: SPAN 3252 and preferably at least one additional literature course. Cross-listed with SPAN 5110. **Semester Hours:** 3 to 3

SPAN 4130 - Medieval Spanish Literature

Examines Spanish literature from the jarchas and the Cid through the Celestina in the context of the reconquest. Considers the construction of the Christian knight as a hero and the corresponding representations of women, Jews and Muslims. Prereq for SPAN 4130: SPAN 3252 and at least one additional literature course. Cross-listed with SPAN 5130. **Semester Hours:** 3 to 3

SPAN 4150 - Masterpieces of Spanish Literature

The most enduring works in the literature of Spain across the centuries. Prereq: SPAN 3252 and preferably at least one additional course in Hispanic literature. Cross-listed with SPAN 5150. **Semester Hours:** 3 to 3

SPAN 4160 - Masterpieces of Spanish-American Literature

Focuses on a limited number of outstanding works in Spanish-American literature across the centuries. Prereq: SPAN 3252 and at least one additional course in Hispanic literature. Cross-listed with SPAN 5160. **Semester Hours:** 3 to 3

SPAN 4220 - Mexican Literature I: pre-Columbian and Colonial

Survey of Mexican literature and culture from pre-Columbian times to the colonial era. Prereq: SPAN 3252 and at least one additional course in Hispanic literature. Cross-listed with SPAN 5220. **Semester Hours:** 3 to 3

SPAN 4221 - Mexican Literature II: 19th to 21st Centuries

Survey of Mexican literature and culture from the early modern to contemporary literature. Prereq: SPAN 3252 and at least one additional course in Hispanic literature. Cross-listed with SPAN 5221. **Semester Hours:** 3 to 3

SPAN 4225 - Orientalisms In The Hispanic Tradition

Advanced studies of orientalism in the Hispanic tradition: the Hispano-Arabic cultural heritage in Early Medieval Spain and in contemporary Hispanic cultures, as well as the influence of other eastern religions and cultures, such as Judaism or Buddhism. Prereq: SPAN 3252 and at least one additional course in Hispanic literature. Cross-listed with SPAN 5225. **Semester Hours:** 3 to 3

SPAN 4230 - Modern Culture of Spain through Film and Narrative

Culture of modern Spain studied through Spanish film. The death of military dictator Francisco Franco opened the process for the recuperation of a usurped democratic, representational system that has become the basis of a cultural and economic resurgence. Taught in Spanish. Prereq: SPAN 3252 and one other Spanish/Spanish American literature course at the 3000-level. Cross-listed with SPAN 5230. **Semester Hours:** 3 to 3

SPAN 4240 - Unexpected Lives: Ibero-American Queer Cinema

Provocative films, by courageous Ibero-American filmmakers, on controversial topics (homosexuality, Lesbianism, bisexuality, transgender individuals, feminism, etc.) will be studied to teach students to think globally as well as critically about LGBTQ individuals in the context of Ibero-American cultures. Prereq: SPAN 3252 and at least one additional course in Hispanic literature. Cross-listed with SPAN 5240. **Semester Hours:** 3 to 3

SPAN 4250 - Contemporary Argentine Short Stories

The short stories by extraordinary Argentine writers, such as Jorge Luis Borges, Silvina Ocampo, Julio Cortázar, Griselda Gambaro, Adolfo Bioy Casares, and Manuel Mujica Lainez, among others, will be studied with the goals of teaching students to think globally as well as critically about literature and other cultures. Prereq: SPAN 3252 and at least one additional course in Hispanic literature. Cross-listed with SPAN 5250. **Semester Hours:** 3 to 3

SPAN 4290 - Ibero-American Thought

The course examines philosophical works by essayists, literary critics, and cultural thinkers from Spanish-American countries and the Iberian Peninsula. Besides reading philosophical works in their original form, students will read scholarly commentaries to deepen their understanding of those works. Cross-listed with SPAN 5290. SPAN 3252 and at least one additional course in Hispanic literature strongly recommended. **Semester Hours:** 3 to 3

SPAN 4300 - Generation of 1898

Spanish literature from around the turn of the century through the first third of the 20th century, reflecting the deep intellectual and cultural ferment occasioned in part by Spain's loss of the Spanish-American War of 1898. Prereq: SPAN 3252 and preferably at least one additional literature course. Cross-listed with SPAN 5300. **Semester Hours:** 3 to 3

SPAN 4310 - Seminar in Spanish Creative Writing: Poetry and Short Fiction

A capstone writing course. Semester writing project will be collected poems and short stories. Prereq: SPAN 3252 and one other upper-division literature course, or permission of instructor. Cross-listed with SPAN 5310. **Semester Hours:** 3 to 3

SPAN 4320 - Interculturalism and Transnationalism in Modern Spain

Students will examine experiences of Spaniards living in different parts of the world and the circumstances of either foreigners or migrants living in Spain, through their visual and literary texts, film, photographs, documentaries and other products of current popular culture, such as contemporary television. Prereq: SPAN 3252 and one other Spanish/Spanish American literature course. Cross-listed with SPAN 5320. **Semester Hours:** 3 to 3

SPAN 4400 - Romanticism in Spain

The romantic movement in 19th century Spain through plays, poems, essays. Prereq: SPAN 3252 and preferably at least one additional literature course. Cross-listed with SPAN 5400. **Semester Hours:** 3 to 3

SPAN 4410 - Modernism

Examines the first real flowering of Spanish American literature, from about 1880 to 1910. The dominant genres of the period were the short story, the essay and lyric poetry. Readings come from Dario, Jose Enrique Rodo, Manuel Gutierrez Najera, Manuel Diaz Rodriquez and others. Prereq: SPAN 3252 and at least one additional course in Hispanic literature. Cross-listed with SPAN 5410. **Semester Hours:** 3 to 3

SPAN 4500 - Nineteenth-Century Spanish Novel

The Spanish novel in one of its most productive periods, beginning with romanticism and carrying through the realist and naturalist movements. Prereq for SPAN 4500: SPAN 3252 and preferably at least one additional literature course. Cross-listed with SPAN 5500. **Semester Hours:** 3 to 3

SPAN 4510 - Contemporary Spanish-American Novel

The novel in Spanish America since the Second World War, the period in which the greatest number and quality of works has been produced. Prereq: SPAN 3252 and at least one additional course in Hispanic literature. Cross-listed with SPAN 5510. **Semester Hours:** 3 to 3

SPAN 4520 - Golden Age Drama

Spanish drama of the 16th and 17th centuries, the period of greatest dramatic productivity in the nation's history. Readings include selections from Lope de Vega, Tirso de Molina, Calderon de La Barca, and others. Prereq: SPAN 3252 and at least one additional course in Hispanic literature. Cross-listed with SPAN 5520. **Semester Hours:** 3 to 3

SPAN 4540 - Race, Class, and Gender in Spanish Golden Age Literature

Explores works of various genres in relation to their social and political contexts in 16th and 17th century Spain, emphasizing the cultural attitudes toward race, class, and gender that inform

them. Prereq: SPAN 3252 and at least one additional literature course. Cross-listed with SPAN 5540 and WGST 4540/5540. **Semester Hours:** 3 to 3

SPAN 4620 - Don Quijote

The complete Don Quijote in Spanish, focusing on its historical, social, and philosophic context, and its role in the emergence of the modern novel. Prereq: SPAN 3252 and at least one additional literature course. Cross-listed with SPAN 5620. **Semester Hours:** 3 to 3

SPAN 4640 - Borges: An Introduction to His Labyrinths

The works of Jorge Luis Borges (short stories, essays, poetry, translations, essays anthologies, lectures) will be studied with the goals of teaching students to think globally as well as critically about literature and other cultures. Prereq: SPAN 3252 and at least one additional course in Hispanic literature. Cross-listed with SPAN 5640. **Semester Hours:** 3 to 3

SPAN 4650 - Garcia Marquez: Words of Magic

The works of Gabriel Garcia Marquez (stories, short novels, novels, newspaper articles, interviews, lectures) will be studied with the goals of teaching students to think globally as well as critically about literature and other cultures. Prereq: SPAN 3252 and at least one additional course in Hispanic literature. Cross-listed with SPAN 5650. **Semester Hours:** 3 to 3

SPAN 4840 - Independent Study: SPAN

Semester Hours: 1 to 3

SPAN 4970 - Special Topics in Literature

Varying topics in Hispanic literature not otherwise covered by regular courses. Note: May be taken more than once, provided that the topic is different each time. Prereq for SPAN 4970: SPAN 3252 and at least one additional course in Hispanic literature. Cross-listed with SPAN 5970. **Semester Hours:** 3 to 3

SPAN 4980 - Special Topics in Linguistics

Varying topics in Hispanic language and literature not otherwise covered by regular courses. Note: May be taken more than once provided that the topics are different each time. Prereq: SPAN 3060 and at least one other upper division Spanish course. Cross-listed with SPAN 5980. **Semester Hours:** 3 to 3

SPAN 5000 - Introduction to Graduate Studies in Spanish

Introduces critical methodologies and critical perspectives of practices of signification such as literature and film, among others, in the context of culture and history. Prereq: Graduate standing. **Semester Hours:** 3 to 3

SPAN 5010 - History of the Spanish Language

Studies the history of the Spanish language, both internal and external, from the language's Latin roots to the present. Historical phonetics are emphasized, though all features of the language are discussed. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4010. **Semester Hours:** 3 to 3

SPAN 5020 - Spanish Sociolinguistics

Studies the Spanish language in its social context. In addition to specific regional linguistic features, social factors such as geography, social class, politics, race, gender, economics, education and history are discussed as determiners of the linguistic landscape. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4020. **Semester Hours:** 3 to 3

SPAN 5060 - Dialects of the Spanish-Speaking World

Studies the geography of the Spanish language in those countries where it is spoken as a primary language. Includes a comparison of dialect features and a study of factors that contribute to the diversity of the Spanish language. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4060. **Semester Hours:** 3 to 3

SPAN 5070 - Spanish Applied Linguistics & Second Language Acquisition

This course is a survey of various areas of the field of linguistics in general (e.g. morphology, syntax, semantics, pragmatics, etc.) as well as specific aspects of the structure (and acquisition) of the Spanish language. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4070. **Semester Hours:** 3 to 3

SPAN 5076 - Spanish in Colorado

A study of the Spanish language in its social context in Colorado and New Mexico. We will study historical factors as well as current social factors that contribute to the use of the Spanish language in this region. Prereq: graduate standing in Spanish. Cross-listed with SPAN 4076. **Semester Hours:** 3 to 3

SPAN 5080 - Spanish in the United States

A study of the Spanish language in its social context as a language of the United States. In addition to studying bilingualism and language traits, factors such as race, gender, class, education, nationality, age, generation and language attitudes are considered. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4080. **Semester Hours:** 3 to 3

SPAN 5110 - Contemporary Spanish Literature

Major works published since the Spanish Civil War, which ended in 1939. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4110. **Semester Hours:** 3 to 3

SPAN 5130 - Medieval Spanish Literature

Examines Spanish literature from the jarchas and the Cid through the Celestina in the context of the reconquest. Considers the construction of the Christian knight as a hero and the corresponding representations of women, Jews and Muslims. Prereq for SPAN 5130: Graduate standing in Spanish. Cross-listed with SPAN 4130. **Semester Hours:** 3 to 3

SPAN 5150 - Masterpieces of Spanish Literature

The most enduring works in the literature of Spain across the centuries. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4150. **Semester Hours:** 3 to 3

SPAN 5160 - Masterpieces of Spanish-American Literature

Focuses on a limited number of outstanding works in Spanish-American literature across the centuries. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4160. **Semester Hours:** 3 to 3

SPAN 5220 - Mexican Literature I: pre-Columbian and Colonial

Survey of Mexican literature and culture from pre-Columbian times to the colonial era. Prereq: SPAN 3252 and at least one additional course in Hispanic literature. Cross-listed with SPAN 4220. **Semester Hours:** 3 to 3

SPAN 5221 - Mexican Literature II: 19th to 21st Centuries

Survey of Mexican literature and culture from the early modern to contemporary literature. Prereq: SPAN 3252 and at least one additional course in Hispanic literature. Cross-listed with SPAN 4221. **Semester Hours:** 3 to 3

SPAN 5225 - Orientalisms In The Hispanic Traditions

Advanced studies of orientalism in the Hispanic tradition: the Hispano-Arabic cultural heritage in Early Medieval Spain and in contemporary Hispanic cultures, as well as the influence of other eastern religions and cultures, such as Judaism or Buddhism. Prereq: SPAN 3252 and at least one additional course in Hispanic literature. Cross-listed with SPAN 4225. **Semester Hours:** 3 to 3

SPAN 5230 - Modern Culture of Spain through Film and Narrative

Culture of modern Spain studied through Spanish film. The death of military dictator Francisco Franco opened the process for the recuperation of a usurped democratic, representational system that has become the basis of a cultural and economic resurgence. Taught in Spanish. Prereq: Graduate standing. Cross-listed with SPAN 4230. **Semester Hours:** 3 to 3

SPAN 5240 - Unexpected Lives: Ibero-American Queer Cinema

Provocative films, by courageous Ibero-American filmmakers, on controversial topics (homosexuality, Lesbianism, bisexuality, transgender individuals, feminism, etc.) will be studied to teach students to think globally as well as critically about LGBTQ individuals in the context of Ibero-American cultures. Prereq: Graduate standing in Spanish, or consent from the instructor. Cross-listed with SPAN 4240. **Semester Hours:** 3 to 3

SPAN 5250 - Contemporary Argentine Short Stories

The short stories by extraordinary Argentine writers, such as Jorge Luis Borges, Silvina Ocampo, Julio Cortázar, Griselda Gambaro, Adolfo Bioy Casares, and Manuel Mujica Láinez, among others, will be studied with the goals of teaching students to think globally as well as critically about literature and other cultures. Prereq: Graduate standing in Spanish, or consent from the instructor. Cross-listed with SPAN 4250. **Semester Hours:** 3 to 3

SPAN 5290 - Ibero-American Thought

The course examines philosophical works by essayists, literary critics, and cultural thinkers from Spanish-American countries and the Iberian Peninsula. Besides reading philosophical works in

their original form, students will read scholarly commentaries to deepen their understanding of those works. Cross-listed with SPAN 4290. Graduate standing in Spanish or consent from the instructor. **Semester Hours:** 3 to 3

SPAN 5300 - Generation of 1898

Spanish literature from around the turn of the century through the first third of the 20th century, reflecting the deep intellectual and cultural foment occasioned in part by Spain's loss of the Spanish-American War of 1898. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4300. **Semester Hours:** 3 to 3

SPAN 5310 - Seminar in Spanish Creative Writing: Poetry and Short Fiction

A capstone writing course. Semester writing project will be collected poems and short stories. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4310. **Semester Hours:** 3 to 3

SPAN 5320 - Interculturalism and Transnationalism in Modern Spain

Students will examine experiences of Spaniards living in different parts of the world and the circumstances of either foreigners or migrants living in Spain, through their visual and literary texts, film, photographs, documentaries and other products of current popular culture, such as contemporary television. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4320. **Semester Hours:** 3 to 3

SPAN 5400 - Romanticism in Spain

The romantic movement in 19th century Spain through plays, poems, essays. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4400. **Semester Hours:** 3 to 3

SPAN 5410 - Modernism

Examines the first real flowering of Spanish American literature, from about 1880 to 1910. The dominant genres of the period were the short story, the essay, and lyric poetry. Readings come from Dario, Jose Enrique Rodo, Manuel Gutierrez Najera, Manuel Diaz Rodriquez and others. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4410. **Semester Hours:** 3 to 3

SPAN 5500 - Nineteenth-Century Spanish Novel

The Spanish novel in one of its most productive periods, beginning with romanticism and carrying through the realist and naturalist movements. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4500. **Semester Hours:** 3 to 3

SPAN 5510 - Contemporary Spanish-American Novel

The novel in Spanish America since the Second World War, the period in which the greatest number and quality of works has been produced. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4510. **Semester Hours:** 3 to 3

SPAN 5520 - Golden Age Drama

Spanish drama of the 16th and 17th centuries, the period of greatest dramatic productivity in the nation's history. Readings include selections from Lope de Vega, Tirso de Molina, Calderon de

La Barca, and others. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4520.

Semester Hours: 3 to 3

SPAN 5540 - Race, Class, and Gender in Spanish Golden Age Literature

Explores works of various genres in relation to their social and political contexts in 16th and 17th century Spain, emphasizing the cultural attitudes toward race, class, and gender that inform them. Prereq: SPAN 3252 and at least one additional literature course. Cross-listed with SPAN 4540 and WGST 4540/5540. **Semester Hours:** 3 to 3

SPAN 5620 - Don Quijote

The complete Don Quijote in Spanish, focusing on its historical, social, and philosophic context, and its role in the emergence of the modern novel. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4620. **Semester Hours:** 3 to 3

SPAN 5640 - Borges: An Introduction to His Labyrinths

The works of Jorge Luis Borges (short stories, essays, poetry, translations, essays anthologies, lectures) will be studied with the goals of teaching students to think globally as well as critically about literature and other cultures. Prereq: Graduate standing in Spanish, or consent from the instructor. Cross-listed with SPAN 4640. **Semester Hours:** 3 to 3

SPAN 5650 - Garcia Marquez: Words of Magic

The works of Gabriel Garcia Marquez (stories, short novels, novels, newspaper articles, interviews, lectures) will be studied with the goals of teaching students to think globally as well as critically about literature and other cultures. Prereq: graduate standing in Spanish, or consent from the instructor. Cross-listed with SPAN 4650. **Semester Hours:** 3 to 3

SPAN 5840 - Independent Study: SPAN

Semester Hours: 1 to 3

SPAN 5939 - Internship

Semester Hours: 1 to 6

SPAN 5950 - Master's Thesis

This course is for students writing a master's thesis. It includes individual mentoring with one or more faculty members, individualized and library-based research. May also include field research. Students must consult with a faculty member before enrolling. **Semester Hours:** 1 to 6

SPAN 5970 - Special Topics in Literature

Varying topics in Hispanic literature not otherwise covered by regular courses. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4970. **Semester Hours:** 3 to 3

SPAN 5980 - Special Topics in Linguistics

Varying topics in Hispanic language and literature not otherwise covered by regular courses. Note: May be taken more than once provided that the topics are different each time. Prereq: Graduate standing in Spanish. Cross-listed with SPAN 4980. **Semester Hours:** 3 to 3

Special Education Courses (SPED)

SPED 4030 - Understanding Students in Urban Contexts

The purpose of this course is to develop a strong knowledge base about learners whose academic, social and behavioral needs present unique opportunities related to teaching and learning. Prereq: UEDU 4010 and UEDU 4020. Cross-listed with SPED 5030. **Semester Hours:** 3 to 3

SPED 4150 - Individualizing Instruction for Learners with Challenging Behaviors

Serves as an introduction to the knowledge, skills and dispositions necessary for teachers to proactively and systematically address student needs that underlie the presence of problem behaviors in schools and class rooms. Course content consists of speci **Semester Hours:** 1 to 1

SPED 4200 - Autism Spectrum Disorders

The purpose of this academy is to provide the paraeducator with information and skills to assist paraeducators in the instruction of students with autism. It gives factual information to dispel the many myths that abound in this field and emphasizes the r **Semester Hours:** 1 to 1

SPED 4710 - Significant Health Support Needs Academy

Intends to prepare paraeducators with knowledge and skills needed for working with children with significant health support needs. Consisting of seven modules of varying length, this 15 clock hour academy focuses on training both the health aid and the si **Semester Hours:** 1 to 1

SPED 4720 - Significant Supports for Challenging Behavior Academy

This academy provides the paraeducator with the knowledge and skills needed for working with children who have significant behavior needs. The academy focuses on working with students who have challenging behaviors. The aim is to provide paraeducators wit **Semester Hours:** 1 to 1

SPED 4730 - Significant Communication Support Needs Academy

This academy provides the paraeducator with the knowledge and skills needed for working with children who have significant behavior needs. The academy focuses on working with students who have challenging behaviors. Its aim is to provide paraeducators wit **Semester Hours:** 1 to 1

SPED 4740 - Life Skills Academy

This 18 clock hour academy is intended to provide the paraeducator with knowledge and skill in instructional methods and life skill support for youth and young adults who have moderate to severe cognitive, communicative, physical or affective needs. **Semester Hours:** 1 to 1

SPED 4750 - Orientation to Special Education

This 15 clock hour academy is designed to provide a basic introduction to special education and the needs of students who have disabilities. It includes introductory material regarding legal and historical foundations of special education, human growth an **Semester Hours:** 1 to 1

SPED 4800 - Orientation to Early Intervention Services

This academy provides Developmental Intervention Assistant (DI Assistant) an introduction to early intervention services under IDEA. Material regarding legal and historical foundations, human growth and development, and the nature of disabilities and t **Semester Hours: 1 to 1**

SPED 4805 - Fundamentals of the IFSP Process

This academy provides Developmental Intervention Assistants an overview of the Individualized Family Service Plan (IFSP). It clarifies their role in the implementation of IFSP and also knowledge about the evaluation and assessment components of the IFSP **Semester Hours: 1 to 1**

SPED 4810 - Early Intervention Teamwork

This academy is designed for Developmental Intervention Assistants (DI Assistants) to work effectively in Early Intervention teams. Introductory materials regarding teamwork, delineation of DI Assistants 'and supervisors' roles and responsibilities as w **Semester Hours: 1 to 1**

SPED 4815 - Working with Families

This academy provides the Developmental Intervention Assistant with information and skills to create and support Family Centered Practices. Focus on the concept of family and the impact of disability on the family is woven throughout the course. **Semester Hours: 1 to 1**

SPED 4820 - Instructional Strategies for Early Intervention

This academy assists the Developmental Intervention Assistant in examining the types of instructional strategies used in the Early Intervention programs. Focus is on building relationships, promoting engagement, and instructional support specifically in **Semester Hours: 1 to 1**

SPED 4825 - Promoting Social Emotional Development

This academy focuses on the importance of infant/toddlers' social emotional development and support. The CSEFEL Pyramid Model, adapted for this course, is a conceptual framework of evidence-based practices addressing the promotion of social emotional d **Semester Hours: 1 to 1**

SPED 4830 - Health Support Needs in Early Intervention

This academy provides the DI Assistant with information and skills to support the health services related to the early intervention programs. Safety awareness and precautions are stressed as related to caring for infants/toddlers in their home and natura **Semester Hours: 1 to 1**

SPED 4835 - Language and Early Literacy Development

This academy is designed for Developmental Intervention Assistant (DI Assistant) to work effectively with families as they support the early language and literacy development of their infants and toddlers with communication challenges. **Semester Hours: 1 to 1**

SPED 4840 - Communication Support Needs Early Intervention

This academy provides the Developmental Intervention Assistant with information and skills to learn characteristic language patterns for infants and toddlers. Focus on critical importance of child interactions as well as key intervention communication st **Semester Hours:** 1 to 1

SPED 4845 - Individualized Intervention Infants/Toddlers

This academy, adapted from CSEFEL, introduces Developmental Intervention Assistants (DI Assistants) to basic knowledge of infants/toddlers with challenging behaviors. It provides necessary skills to implement written behavior support plans bas **Semester Hours:** 1 to 1

SPED 4850 - Transition to Age 3

This academy assists the Developmental Intervention Assistant in learning the elements of transition from Part C to Part B including the difference between an IFSP and IEP. Focus on the cultural and transition issues for the toddler and the family. **Semester Hours:** 1 to 1

SPED 4855 - Interpersonal Skills for DI Assistants

This academy provides the Developmental Intervention Assistant effective interpersonal skills necessary to work with Early Intervention teams. It addresses issues of diversity based on culture, experience, gender, etc. and examines the DI Assistants' **Semester Hours:** 1 to 1

SPED 4860 - Personal Growth Development for DI Assistants

This academy provides the Developmental Intervention Assistant with information and skills to identify and expand personal growth and improvement skills working in Early Intervention programs. The course covers stress-management strategies and uses crea **Semester Hours:** 1 to 1

SPED 4865 - Instructional & Assistive Technology in EI

This academy assists the Developmental Intervention Assistants in examining various types of instructional and assistive technology used in early intervention programs. Focus is on technology used in the home and other natural environments to assist **Semester Hours:** 1 to 1

SPED 4870 - Autism Spectrum Disorder in Early Intervention

This academy provides Developmental Intervention Assistants with information to assist the Early Intervention Professionals to implement instructions for infants/toddlers identified with autism. It offers participants knowledge of structured tasks enviro **Semester Hours:** 1 to 1

SPED 4910 - Special Education Generalist Internship and Site Seminar I

Special education teacher candidates engage in systematic observation of, participation in, design of and reflection on inclusive curricular, instruction and management practices. Graduated learning activities for each internship and time requirements are **Semester Hours:** 1 to 8

SPED 4915 - Practicum For Developmental Intervention Assistant

The Developmental Intervention Assistant will engage in systematic observation of, and participation in the delivery of early intervention services. Practicum Instructor will observe,

coach and assess as per the performance criteria required for completi **Semester Hours:** 2 to 2

SPED 4919 - CO-TOP Practicum

The paraeducator engage in systematic observation of, and participation in instruction of management practices. The learning activities for each practicum are specified in the CO-TOP Practicum handbook and information sheet. Cooperating teachers, district **Semester Hours:** 2 to 2

SPED 5010 - Instructional Strategies for Students with Special Needs

The content of this course extends three essential special education program areas: curriculum, instruction and assessment, to service provision for students with severe support needs.

Semester Hours: 3 to 3

SPED 5030 - Understanding Students in Urban Contexts

The purpose of this course is to develop a strong knowledge base about learners whose academic, social and behavioral needs present unique opportunities related to teaching and learning. Prereq: UEDU 5010 and UEDU 5020. Cross-listed with SPED 4030. **Semester**

Hours: 3 to 3

SPED 5050 - Assessment & Advocacy for Diverse Learners

The purpose of this course is to prepare teachers to gather and use assessment results within a strengths-based framework to advocate for appropriate programming, placement and instruction, and ongoing progress monitoring for students who are culturally a **Semester**

Hours: 3 to 3

SPED 5120 - Negotiating The Special Education Teaching Process

This course explores both theoretical and practical aspects of educating students with special needs. Students will examine the nature of disability, the history and legal basis for special education programming in American schools, as well as contempora **Semester Hours:** 3 to 3

SPED 5130 - Speech/Language Characteristics of Students with Severe Communication Needs

Provides a basis for identification and description of speech and language dysfunctions of students with severe communication needs. Careful attention is given to the transdisciplinary nature of speech or language and its effects on cognitive, affective o **Semester Hours:** 3 to 3

SPED 5140 - Advanced Assessment in Special Education

Using a variety of assessment tools, students will focus on the educational assessment methods and procedures used in decision making and program planning for students with exceptional learning needs and from culturally and linguistically diverse backgrou **Semester Hours:** 3 to 3

SPED 5151 - Culturally Responsive Supports for Social and Emotional Development

This course addresses a multitiered approach to reengineering educational environments from those that are deficit-driven to those that support success for all learners. Students are asked to shift the focus from reduction of challenging behavior to cons **Semester Hours:** 3 to 3

SPED 5160 - Medical/Physical Challenges of Students with Special Needs

Provides an overview of the medical, sensory, communicative, and physical issues for students with special needs. Specific competencies include: identifying, examining, evaluating, and organizing a set of community resources to meet a wide range of medica **Semester Hours:** 1 to 1

SPED 5170 - Individualizing Instruction for Diverse Learners

Provides frameworks for understanding and choosing from an array of instructional strategies that can be incorporated into the instructional design, assessment and implementation processes that meet the needs of diverse learners, particularly students wit **Semester Hours:** 1 to 1

SPED 5180 - Curriculum Planning for Students with Special Needs

Designed to give teachers a framework for providing functional learning experiences in the domains of education, community access, employment, independent living, and social/recreational skills of students in special education. Emphasis is placed on creat **Semester Hours:** 3 to 3

SPED 5250 - Effective Practices for Young Children with Autism Spectrum Disorders

This course provides the learner with an understanding of ASD and provides information about evidence based practices and practical teaching strategies. It provides a 20 hour hands on practicum component that allows students to implement strategies learne **Semester Hours:** 3 to 3

SPED 5260 - Effective Practices for Elementary Children with Autism Spectrum Disorders

The purpose of this course is to emphasize evidence-based practices and practical teaching strategies for the elementary education student with ASD. Developmentally appropriate practices with an emphasis on educational strategies, inclusion and working co **Semester Hours:** 3 to 3

SPED 5270 - Effective Practices for Teenagers/Young Adults with Autism Spectrum Disorder

The purpose of this course is to provide a thorough understanding of ASD and effective strategies/evidence-based practices for students, ages 13-21. Developmentally appropriate practices with an emphasis on educational strategies, inclusion, transition an **Semester Hours:** 3 to 3

SPED 5300 - Collaborating in Schools and Communities

Focuses on the development of competencies in consultation and collaboration. The overall purpose is to encourage the development of understanding and skills that enhance a teacher's ability to work and communicate effectively with school personnel, inclu **Semester Hours:** 3 to 3

SPED 5310 - Collaboration with Families

Provides the school professional with the knowledge, skills, and values that foster effective working relationships with parents and families of the students they serve. **Semester Hours:** 1 to 1

SPED 5400 - Seminar in Special Education

Designed to allow an opportunity for special educators to compare and contrast the service delivery, funding mechanisms, professional ethics, and underlying assumptions of special and regular education. Trends in the field of special education are examine **Semester Hours:** 3 to 3

SPED 5450 - Introduction to ABA and Terminology

This course will introduce the history and basics of ABA with a focus on its related terminology. In addition, ABA benefits will be discussed, and emphasis placed on ethical considerations required for practicing ABA as a board Certified Behavior Analyst **Semester Hours:** 3 to 3

SPED 5460 - ABA Practical Applications

This course will provide a framework for the natural science of behavior. It will provide students with a systematic approach to understanding and precisely describing the behavior of individuals, and its relationship to environmental determinants. Prer **Semester Hours:** 3 to 3

SPED 5470 - ABA Data

This course will introduce how to collect and interpret different types of data, and the importance of making data-driven decisions for behavior change procedures based on functional relationships. Prereq: SPED 5450, 5460. **Semester Hours:** 3 to 3

SPED 5480 - ABA Advanced Data and Behavioral Plans and Applications

Student will learn to use standard celeration charts and make data-driven decisions to write appropriate behavioral plans. They will also learn to use ABA strategies to enhance communication, to support individuals with ASD, and to benefit from systems s **Semester Hours:** 3 to 3

SPED 5490 - Autism In Early Intervention

This course will provide students with the knowledge necessary to implement recommended, evidence-based practices with young children with autism. The course will provide information on the etiology of autism, diagnostic procedures, evidence-based practi **Semester Hours:** 3 to 3

SPED 5500 - Transition and Secondary Issues in Special Education

This course provides the practitioner with an understanding of the special education transition process as specified by federal and state guidelines, as well as effective teaching and learning strategies for secondary youth with disabilities. **Semester Hours:** 3 to 3

SPED 5530 - Language & Literacy Acquisition Div Lrn

This course investigates the relationship between language and literacy acquisition. In the context of first and second language acquisition across the lifespan, the course focuses on bilingual and second language development, and on the acquisition of l **Semester Hours:** 3 to 3

SPED 5600 - Special Education for School Professionals

Designed for school professionals to compare and contrast service delivery options and to understand special education laws and underlying assumptions of special education practices. Through extensive study of original sources and current texts, students **Semester Hours:** 3 to 3

SPED 5740 - Linguistically Responsive Special Education

This is an introductory course designed to provide an overview of instructional planning for culturally and linguistically diverse learners with and without disabilities. **Semester Hours:** 3 to 3

SPED 5780 - Literacy Intervention for Students with Disabilities

Provides the practitioner with an understanding of research-validated approaches, strategies, assessment tools and issues related to effective literacy instruction for students performing significantly below grade level. Practitioners can expect to be abl **Semester Hours:** 3 to 3

SPED 5800 - Workshop: Topics in Special Education

Semester Hours: 0.5 to 4

SPED 5840 - Independent Study: SPED

Semester Hours: 1 to 4

SPED 5918 - ABA Practicum

Supervised field experience with a Board Certified Behavior Analyst for time spent directly working with individuals who require behavioral programming. Students must complete 1000 hours to meet BCBA requirements and 670 hours for BCaBA requirements. 10 **Semester Hours:** 0.5 to 4

SPED 5919 - ABA Intensive Practicum

Supervised field experience with a Board Certified Behavior Analyst for time spent directly working with individuals who require behavioral support. Students must complete 750 hours to meet BCBA requirements and 500 hours for BCaBA requirements. 75 hour **Semester Hours:** 0.5 to 5

SPED 5930 - Special Education Generalist Internship and Site Seminar I

Special education teacher candidates engage in systematic observation of, participation in, design of and reflection on inclusive curricular, instruction and management practices.

Graduated learning activities for each internship and time requirements are **Semester Hours:** 2 to 2

SPED 5931 - Special Education Generalist Internship and Site Seminar II

Special education teacher candidates engage in systematic observation of, participation in, design of and reflection on inclusive curricular, instruction and management practices.

Graduated learning activities for each internship and time requirements are **Semester Hours:** 2 to 2

SPED 5932 - Special Education Generalist Internship and Site Seminar III

Special education teacher candidates engage in systematic observation of, participation in, design of and reflection on inclusive curricular, instruction and management practices.

Graduated learning activities for each internship and time requirements are **Semester Hours:** 2 to 2

SPED 5933 - Special Education Generalist Internship and Site Seminar IV

Special education teacher candidates engage in systematic observation of, participation in, design of and reflection on inclusive curricular, instruction and management practices.

Graduated learning activities for each internship and time requirements are **Semester Hours:** 3 to 8

SPED 6100 - Communication Development for Students with Severe to Profound Needs

An in-depth analysis of the development of communicative competence in students with severe or profound needs. Prereq: Completion of special education core or permission of instructor.

Semester Hours: 3 to 3

SPED 6300 - Teaching Methods for Students with Severe Communication Needs

Offers training in defining and elaborating the needs of students identified as having severe communication needs. Students learn to expand and apply various theories of instruction. They will administer and interpret procedures for assessing speech and l

Semester Hours: 3 to 3

SPED 6950 - Master's Thesis

Semester Hours: 4 to 4

School Psychology Courses (SPSY)

SPSY 5600 - Behavior Analysis and Intervention

This course introduces knowledge and skills necessary for school psychologists to proactively address child problem behaviors. Content includes application of Positive Behavioral Support (PBS), functional behavior analysis and intervention, evaluation of **Semester Hours: 3 to 3**

SPSY 5800 - Workshop: Topics in School Psychology

Semester Hours: 1 to 6

SPSY 5840 - Independent Study: SPSY

Semester Hours: 1 to 4

SPSY 5900 - School-Based Multicultural Interventions

The course will foster students' understanding and appreciation of diversity and its applications for school psychology practice, educational contexts, and mental health policy. Students will learn to evaluate and implement school-based mental health and **Semester Hours: 3 to 3**

SPSY 6000 - BrainSTARS: TBI-Strategies for Teams and Re-Educ

This interdisciplinary course provides a knowledge base in Traumatic Brain Injury (TBI) in children utilizing foundational learning experiences in sources of brain injury, various sequelae, interventions, educational modifications, IEP development, and re **Semester Hours: 3 to 3**

SPSY 6020 - Consultation and Leadership in TBI

This interdisciplinary course focuses on consultation, teamwork and leadership strategies needed for providing family-centered, culturally competent, community-based services for children with traumatic brain injury and other disabilities and their famili **Semester Hours: 3 to 3**

SPSY 6040 - Applied Research in TBI for School Psychologists

This seminar focuses on the development of skills in conducting applied research with children and youth who have suffered a traumatic brain injury and addresses the need for school psychologists to develop and interpret research designs used for applied **Semester Hours: 1 to 3**

SPSY 6100 - School Psychology: Professional and Legal Foundations

This course covers topics related to the practice of school psychology, both past and present, including legal/ethical obligations/issues, accreditation, certification/licensure, culturally competent practice, roles/responsibilities, and evaluation and ac **Semester Hours: 3 to 3**

SPSY 6150 - Psychoeducational Assessment I

Focuses on assessment of cognitive ability, cognitive processes, and achievement in children and adolescents. Topics include selection, administration, and interpretation of ability and achievement tests; psychological report writing, and psychometric, hi **Semester Hours: 3 to 3**

SPSY 6160 - Psychoeducational Assessment II

Focuses on the assessment of adaptive behavior, personality, and social-emotional functioning in children and adolescents. Topics include selection, administration, and interpretation of these types of measures; cultural considerations in psychological as **Semester Hours: 3 to 3**

SPSY 6170 - Assessment and Intervention: Birth to 3

Course familiarizes students with the provision of psychological services to children birth to 3 years. The course includes coverage of relevant federal/state mandates, typical and atypical development, multicultural issues, and family-centered and consul **Semester Hours: 3 to 3**

SPSY 6200 - Risk, Resilience, and Prevention in School Mental Health

Examines sources of biological and social risk that prevent children from infancy through adolescence from reaching their full adult potential, the prevalence of these risk factors in North American communities, and the wellness models of intervention tha **Semester Hours: 3 to 3**

SPSY 6350 - School-Based Interventions: Children, Youth and Families

Provides theoretical and practice-oriented introduction to child therapy in schools. Weaves together skills and techniques essential to theory and implementation of psychotherapeutic techniques. Course activities compliment the systemic and group-based interventions examined in SPSY 6400. Prereq: RSEM 5300 Introduction to Measurement, CPCE 5010 Counseling Theories, and permission of instructor. **Semester Hours: 3 to 3**

SPSY 6400 - School-Based Interventions: Groups, Classrooms and Systems

Provides students with advanced study of research on and techniques of classroom and small group interventions. Includes instruction on the evaluation of intervention effectiveness. Systemic, school-wide interventions are addressed. Prereq: RSEM 5100, RSEM 5300, SPSY 6350. **Semester Hours: 3 to 3**

SPSY 6410 - Psychoeducational Assessment of Culturally and Linguistically Diverse Students

Prepares students to provide psychoeducational assessments to children who are culturally and/or linguistically diverse. Content includes differentiation of language disorders versus language acquisition, and developing recommendations for accommodations **Semester Hours: 3 to 3**

SPSY 6420 - Crisis Prevention, Planning and Intervention

Introduces students to crisis theory, prevention research, and intervention strategies. The course is designed for school mental health professionals interested in developing advanced crisis counseling and intervention skills sufficient for use in school **Semester Hours: 3 to 3**

SPSY 6450 - School-Based Consultation for Mental Health Professionals

A wide range of traditional or emerging consultation models emphasizing practical application of empirically-based approaches to advance the social or academic competence of students, classrooms, schools and districts. Hands-on experience supplement cours **Semester Hours: 3 to 3**

SPSY 6500 - Identifying and Planning for the Mental Health Needs of Children and Adolescents

Provides students with advanced concentrated study of the etiology, diagnostic criteria, recommend intervention strategies, and diagnostic procedures appropriate for the identification of children's mental health needs. **Semester Hours:** 3 to 3

SPSY 6550 - Academic Interventions in School Psychology

Provides training in knowledge and skills for the use of educational intervention practices in school psychology, including the development, implementation, and evaluation of academic interventions in the areas of reading, math, and written language; curr **Semester Hours:** 3 to 3

SPSY 6695 - Rsrch Lab:Autism w/in Cltrlly & Lngstclly Dvrse Ppltns

In this cross-disciplinary yearlong research lab, students will work individually or in groups to design, implement, and analyze research questions related to autism within culturally and linguistically diverse populations. Course topics will include anti **Semester Hours:** 1 to 2

SPSY 6911 - School Psychology Practicum

Supervised practice in providing comprehensive psychological services to children in grades preschool to 12. Students are placed in public schools or affiliated school-related agencies and supervised by practicing, licensed school psychologists. Prereq: **Semester Hours:** 1 to 6

SPSY 6915 - Practicum with Culturally and Linguistically Diverse Students

This school psychology practicum experience is focused on developing multicultural competencies with culturally and linguistically diverse students through either a cultural immersion experience in Mexico or a local practicum placement in a culturally and linguistically diverse setting. **Semester Hours:** 3 to 3

SPSY 6917 - Advanced Practicum in Psychological Assessment

Under faculty supervision provide psychological assessment services to clients in the UC Denver Student and Community Counseling Center. Prereq: SPSY 6150, SPSY 6160, and consent of the instructor. **Semester Hours:** 1 to 1

SPSY 6918 - Clinical Externship

Clinical experience under supervision of licensed, doctoral-level professionals. Students participate in assessment and intervention in a variety of settings. Note: All field placements must be approved by the SPSY Program Director in advance of regist **Semester Hours:** 1 to 3

SPSY 6930 - School Psychology Internship

Supervised experience in the practice of school psychology with children and adolescents in a school or clinic setting. Prereq: SPSY 5900, SPSY 6410, SPSY 6911, SPSY 6200, SPSY 6350, SPSY 6400, SPSY 6450, SPSY 6500, SPED 5780 and instructor consent. **Semester Hours:** 1 to 6

SPSY 6935 - Practicum in Evidence-Based Interventions: TBI

Practice implementing interventions with children and youth with a variety of behavioral, learning, and emotional problems related to traumatic brain injury. Includes special emphasis on identifying and implementing evidence-based interventions including **Semester Hours: 1 to 3**

Social Sciences Courses (SSCI)

SSCI 4050 - Special Topics in Law Studies

These topics courses are concerned with specialized aspects of the study of law within the social sciences from various theoretical and research perspectives. These courses are interdisciplinary and serve as a forum for discussion specific to students in **Semester Hours: 3 to 6**

SSCI 4710 - Women and Religion

A sociological exploration of the contemporary roles of women in religion. Course examines American and world religious groups with an eye to women's involvement. Considers how women have changed these traditions as they take on leadership roles and discusses the tensions that arise within these traditions as a result of their expanded participation. Cross-listed with HUMN 5710, SSCI 5710, WGST 4710/5710, RLST 4710/5710. **Semester Hours: 3 to 3**

SSCI 5000 - 19th Century Philosophy

Covers the systematic work of such German idealists as Hegel, Fichte, and Shelling, as well as responses to those systems by such authors as Marx, Kierkegaard, and Nietzsche. Prereq: PHIL 3002 or 3022. Cross-listed with PHIL 4000/5000 and HUMN 5000. **Semester Hours: 3 to 3**

SSCI 5013 - Philosophical Problems in the Social Sciences and Humanities

Presents an overview of key theoretical issues currently emerging across academic disciplines. Examines questions about reality, knowledge, ethics that affect social research and writing in the humanities. Readings explore how contemporary philosophical and cultural discourses have altered theory and method. Assignments include influential theoretical pieces by key historical and contemporary thinkers, examples of application in social research, and interpretations of thought and affect in cultural contexts. Cross-listed with HUMN/PHIL 5013. **Semester Hours: 3 to 3**

SSCI 5020 - Elements of Social Thought

Introduces students to the disciplines that comprise the social sciences (classical anthropology, sociology, sociology of religion, philosophy of history, political theory, classical psychology, etc.). Provides necessary tools for interdisciplinary students to understand the social infrastructure of contemporary society. Cross-listed with HUMN 5020 and PHIL 5020. **Semester Hours: 3 to 3**

SSCI 5023 - Research Perspectives in Social Science

Introduces interdisciplinary social research through a critical examination of various methodological approaches. Each student formulates a research proposal which includes a research question, a review of the literature, and methods of study. **Semester Hours: 3 to 3**

SSCI 5050 - Topics in Social Science

These topic seminars are concerned with specialized aspects of the social sciences from various theoretical and research perspectives. These courses are interdisciplinary and serve as a forum for discussion of individual projects and theses. **Semester Hours: 1 to 3**

SSCI 5101 - Pragmatism: Classical American Philosophy

The most significant philosophical tradition born in the United States is pragmatism. Examines several of the most important classical works of this tradition, the influence of thinkers who have helped pragmatism, and the contemporary relevance of this tradition. Figures who may be included in this course are: Emerson, Pierce, Royce, James, Dewey, Mead, Rorty. Prereq: An introductory course in philosophy. Cross-listed with PHIL 4101, 5101, HUMN 5101. **Semester Hours:** 3 to 3

SSCI 5242 - Bioethics

Examines some of the major moral issues confronting the nation's health care system. The class will search for solutions to such problems as financing health care for those unable to do so on their own, determining the extent of a patient's right to both refuse and demand certain types of medical treatment, and allocating scarce medical resources such as life-saving vital organs. The springboard for examining these issues will be the doctor or patient relationship framed by the moral principles of respect for persons and beneficence. Cross-listed with PHIL 4242, PHIL 5242, HUMN 5242. **Semester Hours:** 3 to 3

SSCI 5250 - Environmental Ethics

While human industry/technology creates enormous material prosperity, it can result in devastating environmental damage. This course analyzes the moral values, consequences and duties implied in relationships between human beings, animals and ecological systems, while seeking out new and ethical approaches. Cross-listed with PHIL 4250/5250 and HUMN 5250. **Semester Hours:** 3 to 3

SSCI 5400 - Women and Violence

Analyzes the social, political, legal, and psychological aspects of violence against women and addresses: definitions of the problem, demographics, survivors, perpetrators, children who witness, bystanders, strategies and tactics of abuse and survival, along with strategies for prevention, intervention, treatment and social change. **Semester Hours:** 3 to 3

SSCI 5520 - The City Beautiful: Art, Architecture and Theory in Urban History

How did cities develop and what were the buildings that filled these spaces? Posing this question initially, this course takes a case-study approach to surveying the concerns confronting different cultures as they developed their urban environments sociologically, anthropologically, architecturally and spatially. Cross listed with HUMN 5520. **Semester Hours:** 3 to 3

SSCI 5530 - Social Construction of the Self

Investigates theories that address the construction of self and how that construction is constrained by culture, politics, society and historical moment. **Semester Hours:** 3 to 3

SSCI 5550 - Paris 1910: Art, Philosophy and Psychology

Traces the influences of philosophy, psychology, and art in the English, French, and German-speaking worlds in the early twentieth century. This intellectual history is extended to broader cultural and political contexts. Key period is between 1910 and 1968, when modernity's key

aspirations and tensions became explicit. Cross-listed with HUMN 5550 and PHIL 5550.

Semester Hours: 3 to 3

SSCI 5600 - Philosophy of Religion

Nature of religion and methods of studying it. Cross-listed with HUMN 5600, PHIL 4600, 5600, RLST 4060, and 5060. **Semester Hours:** 3 to 3

SSCI 5650 - Reflections on Modernity

Explores modernity as a historical epoch and a theoretical space, looking at the commentaries and reflections of influential 20th century thinkers including Adorno, Arendt, Levinas, Merleau-Ponty, Habermas and Foucault. Examines how the theoretical inclinations of modernity were influenced by politics, art, literature and culture. Cross-listed with HUMN 5650 and PHIL 5650.

Semester Hours: 3 to 3

SSCI 5710 - Women and Religion

A sociological exploration of the contemporary roles of women in religion. Course examines American and world religious groups with an eye to women's involvement. Considers how women have changed these traditions as they take on leadership roles and discusses the tensions that arise within these traditions as a result of their expanded participation. Cross-listed with HUMN 5710, SSCI 4710, WGST 4710/5710, RLST 4710/5710. **Semester Hours:** 3 to 3

SSCI 5720 - Sexuality, Gender and Their Visual Representation

Studies sexuality, gender and identity representation from classical antiquity through the present in the visual arts. Uses the literature of visibility, feminism, race and queer theory. Explores representations of femininity, masculinity and androgyny and their reinforcement and challenge to gender-identity norms. Cross-listed with HUMN 5720 and WGST 5720. **Semester Hours:** 3 to 3

SSCI 5750 - Philosophical Psychology

Explores debates about psyche and body, mind and world, self and others, and consciousness and nature. Examines the philosophical questions related to those debates that arise within theories of perception, affect and cognition offered by influential psychological models. Cross-listed with HUMN 5750, PHIL 5755. **Semester Hours:** 3 to 3

SSCI 5770 - Imperialism, Post-Colonial Theory, Visual Discourse

Western empires disseminate political, social, economic & cultural practices through complex interplay of cultural practices. Visual production is a complex site for meaning making within imperialism. Examines how visual discourses operated to create meaning. **Semester Hours:** 3 to 3

SSCI 5830 - Grant Writing for Nonprofits

Designed to help current and future professionals in the nonprofit sector understand the social, political, and economic context and mechanics of pursuing grants, government contracts, and other funding for nonprofit organizations. **Semester Hours:** 3 to 3

SSCI 5833 - Existentialism

Examines one of the most influential movements in recent European thought, beginning with existentialism's 19th century roots, and continuing on to the existentialist philosophers of the 20th century. Figures covered may include Dostoyevsky, Kierkegaard, Nietzsche, Heidegger, Sartre and de Beauvoir. Cross-listed with PHIL 4833/5833 and HUMN 5833. **Semester**

Hours: 3 to 3

SSCI 5840 - Independent Study: SSCI

Semester Hours: 1 to 3

SSCI 5920 - Philosophy of Media and Technology

A philosophical examination of interrelationships between contemporary media, technology, and their impacts upon character of contemporary life and values. Topics may include ethics, epistemology, democracy, advertising, media literacy and criticism. Cross-listed with PHIL 4920, 5920, HUMN 5920. **Semester Hours:** 3 to 3

SSCI 5933 - Philosophy of Eros

Why is philosophy an erotic activity and what are the implications of this insight? We will explore these issues, first, by reading Plato's erotic dialogues: Lysis, Symposium and Phaedrus. Then we will focus on Freud's influential (and controversial) appropriation of Plato's thought in the writings that span his career, from *The Interpretation of Dreams* (1900) to *Civilization and its Discontents* (1930) and beyond. Finally, we will survey post-Freudian theories of eros, such as Michel Foucault's *History of Sexuality*, as well as the more recent contributions of thinkers such as Jonathan Lear, Thomas Nagel, Martha Nussbaum and Slavoj Žižek. Cross-listed with PHIL 4933/5933, WGST 4933/5933, and HUMN 5933. **Semester Hours:** 3 to 3

SSCI 5939 - Internship

Semester Hours: 1 to 6

SSCI 6010 - Methods and Theories of Feminism and Gender Studies

Provides graduate-level interdisciplinary study in historiography, methodologies and theories of women's, gender and sexuality studies and considers how culture is constructed around these categories. Cross-listed with WGST 6010. **Semester Hours:** 3 to 3

SSCI 6950 - Master's Thesis

Semester Hours: 1 to 8

SSCI 6960 - Master's Project or Report

Research which may be based on field work. **Semester Hours:** 1 to 6

Sustainability Courses (SUST)

SUST 3010 - The Non-Sustainable Past

This is the first of a two-course sequence that assesses the interrelations among the historical, political, cultural, ecological, and economic aspects of contemporary environmental issues. SUST I focuses on the non-sustainable use of water, land, energy, manufactured goods, and food. Prereq: 1 Natural Science Core and 1 Social Science Core. **Semester Hours:** 3 to 3

SUST 3011 - Toward a Sustainable Future

This is the second of a two-course sequence that examines the interrelations among the historical, political, cultural, ecological, and economic aspects of contemporary environmental issues. SUST II provides students with theoretical perspectives on sustainability through a series of current, problem-oriented case studies. Prereq: 1 Natural Science Core and 1 Social Science Core. **Semester Hours:** 3 to 3

SUST 3939 - Internship

This course will provide internships with agencies, businesses and programs involved in initiatives aimed at promoting a sustainable future. Internships could include work with concerns involved in addressing specific environmental issues or with projects aimed at raising awareness of issues related to sustainability. Prereq: SUST 3010, SUST 3011. **Semester Hours:** 1 to 3

SUST 4960 - Capstone in Sustainability

As the culmination of the Sustainability Minor, this course examines current research practices in sustainability and sustainability-related fields. Students work in teams to complete a sustainability/sustainability-related research paper and poster and present it to the campus community. Note: Topics variable depending on region under study, student interest, and faculty specialty. Prereq: SUST 3011. **Semester Hours:** 3 to 3

Teacher Education Courses (TCED)

TCED 482 - Wrkshp: Elem Sub Tchrs

Semester Hours: 3 to 3

TCED 1111 - Freshman Seminar

This is a special topics course and the specific content varies each time the course is offered.

Semester Hours: 1 to 3

TCED 2400 - Issues in Chicano/a Education

A historical overview of segregation, landmark court cases, and immigration policy in the education of Chicanos/as in Colorado and nationally from 1900 to the present is offered. The intersection of these issues in the education of undocumented students i **Semester Hours:** 3 to 3

TCED 4800 - Workshop: Teacher Education

This is a workshop course and the description varies each time the course is offered. **Semester Hours:** 0.5 to 4

TCED 5000 - Special Topics: Teacher Education

This is a workshop course and the description will vary each time the course is offered.

Semester Hours: 0.5 to 4

Theatre & Film General Courses (TFVP)

TFVP 1100 - Introduction to Theatre, Film, and Television

An introduction to dramatic and cinematic texts, styles and productions; students will research and analyze a play and develop it into a film script. They will present their understanding by storyboards and multi-media presentations, exams and written work. **Semester Hours:** 3 to 3

TFVP 1110 - Production Design: Theatre, Film and Video

This design research class explores the creative skills, technical knowledge and scholarly engagement employed by production designers. The students will understand how design elements enhance a production and create a production design for a video, film or play.

Semester Hours: 3 to 3

TFVP 1550 - Scriptwriting I

Each student conceptualizes, designs and creates short scripts for stage and screen. Instruction includes story development through first draft and rewrites, incorporation of critical feedback and the merger of image and idea to convey dramatic concepts. **Semester Hours:** 3 to 3

TFVP 3222 - Theatre, Film & Video Business

Students explore and evaluate business issues in film and theatre production such as finance, distribution, organization and legal issues through readings and projects. Students develop a solid business vocabulary and basis for work in these fields. **Semester Hours:** 3 to 3

TFVP 3620 - Acting Styles

This course explores various topics in performance for stage and screen. Students will fully prepare scene studies using various methods and techniques in acting. Each semester will focus on one approach giving students an in-depth basis for their work. **Semester Hours:** 3 to 3

TFVP 3730 - Scenery Design

Introduces the principles and practices of production design for the theatre and film. Emphasizes textual analysis, the aesthetic and practical elements of design, design development and graphics. Requirements include related experiences working departmental productions.

Semester Hours: 3 to 3

TFVP 3740 - Costume Design

Introduces the principles and practices of costume design for theater and film productions. Students will focus on basic figure drawing, practical elements of design, design development and different costume rendering techniques through projects and productions. **Semester**

Hours: 3 to 3

TFVP 3820 - Production Process

Part two of two-course sequence. Students will increase their experience by applying production skills and theories learned in Intro to Production Process in a practicum setting to support theatre and film production activities. **Semester Hours:** 3 to 3

TFVP 3860 - Applications Seminar

Course work is reflection on the intellectual competencies, artistic capabilities, and skill sets gained throughout student's theatre & film studies. Students will create projects and write a significant paper on specified topics regarding entertainment industry opportunities, to assist their career advancement. **Semester Hours:** 1 to 3

TFVP 3910 - BA Junior Project

This course consists of structured work and independent work sessions assisting students with portfolio and career path. Students will be required to work on planning an event, either in theatre or film and produce professional portfolio for faculty review. **Semester Hours:** 1 to 1

TFVP 3939 - Internship

Designed experiences involving application of specific, relevant concepts and skills in supervised employment situations. Note: TFVP majors and minors only, or permission of instructor.

Semester Hours: 1 to 3

TFVP 4095 - Senior Thesis Project

The BFA thesis course involves the preparation, exhibition and critical faculty response to creative work and self-promotional materials as developed by graduating seniors on the BFA degree track. **Semester Hours:** 3 to 3

TFVP 4560 - Directors at Work

Through creation and participation on a premiere production of a devised, media, and/or mixed media, performance work in collaboration with faculty and guest professional artists, directing students will sharpen the application of skills and learn aesthetics and structure. **Semester Hours:** 3 to 3

TFVP 4570 - Directing Practicum

Directing Practicum is professional practice training through a mentored project-based assistantship with directors. During class students will be connected to and assist directors on film and theatre projects, working in small groups or one on one, to develop their skills.

Semester Hours: 3 to 3

TFVP 4910 - BA Senior Project

This course consists of structured work and independent work sessions leading students to a portfolio and career path. Students will be required to research various career opportunities and produce a professional portfolio for faculty review. **Semester Hours:** 1 to 1

Theatre Courses (THTR)

THTR 1000 - Visual Culture

Study academic theories surrounding visual cultures related to Film, Theatre & Video relating to topics such as representation, spectatorship, and mass media by viewing, research, and analyzing. Creative projects, readings, and written responses will increase sensitivity to visuals usage. Cross-listed with FITV 1000. **Semester Hours:** 3 to 3

THTR 1001 - Introduction to Theatre & Arts in the Community

Discussion, workshops, and lectures designed to discover, analyze, and evaluate all aspects of the theatre experience: writing, acting, directing, staging, history, theory and its relationship to film & video. Attending plays and field trips to several Denver-area theaters, and demonstrations. **Semester Hours:** 3 to 3

THTR 1110 - Production Design: Theatre, Film and Video

This design research class explores the creative skills, technical knowledge and scholarly engagement employed by production designers. The students will understand how design elements enhance a production and create a production design for a video, film or play.

Semester Hours: 3 to 3

THTR 1220 - Acting Skills Module I

This course is the study in vocal and physical techniques for skill development for the actor in various media which provides a foundation for continued study and performance. **Semester Hours:** 3 to 3

THTR 1770 - Art Direction and Design Skills I

Students will study principles of theatre and film production design. They will do exercises in drawing, sketching, drafting, and rendering, with practical application towards theatre, film, and architectural design techniques. Upon completion, student will have a basic production design skills. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

THTR 1890 - Production Crafts I

Students introduced to practical applications of production tools stage equipment and construction vocabulary, through lectures and experiences in a variety of production settings. Students participate as crew members for both theatrical and film events thereby acquiring production skills. **Semester Hours:** 3 to 3

THTR 1891 - Production Crafts Lab

Students introduced to theoretical and practical applications of production tools, vocabulary, and experiences through working on projects and production crews in a variety of production settings. Students participate as crew members in lab for both theatrical and film events thereby acquiring production skills. **Semester Hours:** 1 to 1

THTR 1895 - Production Crafts II

Students introduced to practical applications of costume construction, design & vocabulary, through lectures and experiences in a variety of production settings. Students will construct, maintain, serve as crew members for both theatrical and film events thereby acquiring production skills. **Semester Hours:** 3 to 3

THTR 2220 - Acting: Performance for Film, Theatre, and TV

Provides the study, skill development and workshop experience for the actor in various media ? Including film, television, commercial and voice over work. Cross-listed with FITV 2220.

Semester Hours: 3 to 3

THTR 2375 - Design and Decoration Survey

A survey of the history of visual decoration and ornamentation from ancient civilizations through to contemporary art. Subjects will include the study of textiles, motifs, ornamentation, architecture, and furniture and of the influences that shaped the history of visual decoration.

Semester Hours: 3 to 3 **When Offered:** FALL

THTR 2380 - Costume History Survey

This course explores the history of Costume & Fashion from Ancient Greece through the present; includes an analysis of historical modes of production, and artistic creation in related cultures. **Semester Hours:** 3 to 3

THTR 2400 - Technical Drawing for Production

Students will study principles of technical drawing through lectures and projects. They will do exercises in sketching, orthographic projection and drafting, with practical application towards theatre, film, and architectural design techniques. Upon completion, student will have skills in technical drawing methods. **Semester Hours:** 3 to 3 **When Offered:** FALL SPR

THTR 2450 - Introduction to Performing Arts and Events Management

Offers students the ability to learn about stage managing events in the performing arts, in a non-pressure environment where leadership and organizational skills may develop and the student can gain a general understanding of the profession. **Semester Hours:** 3 to 3

THTR 2510 - Introduction to Oral Interpretation

Students will have required readings in a variety of text styles. They will choose perform scenes from those texts introducing them to the basic performance skills required for Stage and Screen acting. **Semester Hours:** 3 to 3

THTR 2531 - Acting for Non-Theatre Majors

Introductory acting course which focuses on the skills comprising the actor's art and their direct application to all disciplines of study outside of the theatre major. Students investigate interpersonal skills such as collaboration, communicating, risk-taking, listening, and creative problem solving. **Semester Hours:** 3 to 3

THTR 2560 - Topics in Theatre

Specialized topics in theater. **Semester Hours:** 1 to 6

THTR 2600 - Studio I: Dynamics of Content Creation

Investigates the process of creating performance texts for live, recorded and mixed presentation as well as the methods of selecting, transforming and pacing material for performance.

Semester Hours: 3 to 3

THTR 2710 - Theatrical Design, Aesthetics, Production I

Semester Hours: 3 to 3

THTR 2770 - Art Direction & Design Skills II

Students will study advanced presentation hand & computer techniques for through lectures and projects. They will develop skills in sketching, rendering, model building for theatre, film, and other designed environments (retail, rock concerts, worship, industrial productions, & restaurants). **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

THTR 2820 - Departmental Production

Participation in departmental production. **Semester Hours:** 1 to 1

THTR 2821 - Multi-Arts Performance

Participation in an integrated arts performance piece. Credit hours are determined by a faculty advisor and are dependent on the level of responsibility in the production. **Semester Hours:** 2 to 3

THTR 2822 - Affiliated Theatre Production

Participation in a production at an affiliated theatre in the Denver metro area. Credit hours are determined by a faculty advisor and are dependent on the level of responsibility in the production. **Semester Hours:** 1 to 2

THTR 2823 - Theatre Buffs Production

Participation in a Theatre Buffs production. Credit hours are determined by a faculty advisor and are dependent on the level of responsibility in the production. **Semester Hours:** 1 to 2

THTR 2824 - Theatre Practice: Management

Practicum component of the theatre emphasis requirement through participation in stage management, box office management, or public relations for an approved production. Credit hours are determined by a faculty advisor and are dependent on level of responsibility in the production. **Semester Hours:** 2 to 4

THTR 2840 - Independent Study: THTR

Prereq: Written permission of the supervising instructor. **Semester Hours:** 1 to 3

THTR 2890 - Production Crafts III

Students introduced to practical applications of prop construction, design & vocabulary, and scenic painting through work experiences in a variety of production settings. Students will construct, maintain, serve as crew members for both theatrical and film events, thereby acquiring production skills. **Semester Hours:** 3 to 3

THTR 2895 - Production Crafts IV

Students are introduced to practical applications of lighting & sound design as well as installation practices & vocabulary, through work experiences in a variety of production settings. Students serve as crew members for events, thereby acquiring production skills. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

THTR 2900 - Dramatic Writing for Stage and Screen

Students will read, analyze and write short dramatic scripts for stage and screen. Students will write, present & rewrite, with special emphasis on the demands of production: space, acting, staging conventions and techniques. **Semester Hours:** 3 to 3

THTR 3010 - Stage and Production Management

This is a course that addresses aspects of planning and managing various theatrical events and live performances. Emphasizes maximum results, given the complexity of live performance and the resource pool. **Semester Hours:** 3 to 3

THTR 3115 - Critical Perspectives on Performance

Students explore performance with particular histories, commitments, and processes. and read and discuss historical, theoretical, and critical perspectives, as well as see performances. Will make use of these ideas and experiences in the process of developing own performance projects. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

THTR 3300 - Studio I: Dynamics of Content Creation

Students investigate the process of creating performance texts for live, recorded and mixed presentation. Through lectures and studio work the class will explore the methods of selecting, researching, transforming and scoring images, text and material for performance. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

THTR 3500 - Elements of Directing

Students explore the director's analytical process, interpretative production choices, and rehearsal techniques that are fundamental to the director's work in theater, film and video productions. By using hands-on learning environment with a primary focus on the interpretation and staging scripts. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

THTR 3520 - Acting/Directing Studio

This is a workshop course modeled on professional studios for Directors and Actors. Students study in vocal and physical techniques for skill development in a variety of scene work directed by members of the directing class. Prereq: THTR 2220. Coreq: **Semester Hours:** 3 to 3 **When Offered:** *FALL*

THTR 3530 - Acting: Character and Text

Fully prepared scene studies leading to advance work in characterization and text. Methods of discovering and utilizing the range of creative potential play scripts from the current production program are emphasized. **Semester Hours:** 3 to 3

THTR 3531 - Theatre of Social Responsibility

Students study interactive theater based on selected social, political, or community concerns (peer pressure, gender identification and substance abuse). Students will create a performance piece on the selected topic. **Semester Hours:** 3 to 3

THTR 3550 - World Theatre

Discussion, workshops and lectures designed to discover, analyze and evaluate the world theatre experience from countries outside of the United States. The course will explore theatre and its precedents in Asia, Africa, Eastern Europe and Latin America. **Semester Hours:** 3 to 3

THTR 3560 - Topics in Theatre

Specialized topic in theater. **Semester Hours:** 1 to 3

THTR 3561 - Topics in Theatre: Honors in Humanities Cluster

Specific topics courses designed as cluster courses for the Honors in Humanities program. Titles rotate on a regular basis. **Semester Hours:** 1 to 3

THTR 3580 - Theatre for Children

Offered irregularly. Study of processes involved in creating substantial theatre for children, including an examination of various sources for dramatizing children's stories, fairy tales, poems, and existing scripts. Includes a full production of a children's play to be performed by members of the class before audiences of children. **Semester Hours:** 3 to 3

THTR 3610 - Performance: Theory/History/Criticism I

Part one of two semester course sequence exploring questions of dramatic theory and dramaturgy in context of the development of Western Theater before 1850 and an analysis of historical modes of production, dramatic text and artistic creation in relation to contemporary theatrical practice. **Semester Hours:** 3 to 3 **When Offered:** FALL

THTR 3611 - Drama of Diversity

Investigates the creation and reinforcement of gender, ethnic, and racial stereotypes in theatre, film, and television in the United States. The course explores how popular images are created by writers, directors, and performers, and become "reality" for the audiences for which they are intended. **Semester Hours:** 3 to 3

THTR 3620 - Performance: Theory/History/Criticism II

Performance: Theory/History/Criticism II: Part of 2 semester course sequence exploring Western theatre. Students will read plays, research documents from 1875 through the present and write papers on historical modes, production methods, dramatic theory of production, and

dramatic text, in relation to contemporary theatrical practice. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

THTR 3720 - Lighting Design

A practical introduction to the history, theory, practice and equipment for lighting performing arts productions. Course emphasizes textual analysis for lighting design, basic electricity, lighting equipment and control, safety practices and lighting graphics. Requirements include related experiences with departmental productions. **Semester Hours:** 3 to 3

THTR 3725 - Arts in Action

Students study interactive theater based on selected social, political, or community concerns & will use their skills to create a performance piece. Students use various sources for dramatizing stories and will tour the production. Requires out of class time for performances. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

THTR 3735 - Career Creation

This course consists of work sessions assisting students with portfolio and career path. Students will be required to explore related careers, do interviews and activities, assess their strengths and interests and produce professional portfolios in several possible employment areas. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

THTR 3760 - Sound Design for the Theater

Sound design with practical application towards usage in the theatrical discipline. Includes studio techniques, live playback, script analysis, and recording techniques. Students will learn the various applications through work on class projects and performances. **Semester Hours:** 3 to 3

THTR 3765 - Digital Visualization for Production

Digital 2d and 3D techniques, vocabulary and processes used specifically in the creation, visualization and implementation of pre and post-production design elements for the Performing Arts. Hardware and software technology explicit to the disciplines will be covered. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

THTR 3770 - Production Design Studio I

Students will study design & presentation using design projects. Using skills in sketching, rendering, and model building they will turn out 5 project designs for Scenery, or Lighting or Costume Design or retail, rock concerts, worship, industrial productions, & restaurants). **Semester Hours:** 3 to 3 **When Offered:** *FALL*

THTR 3775 - Production Design Studio II

Students will design advanced projects. Using skills in sketching, rendering, and model building, they will turn out 2 complete projects, one each in their primary and secondary design (or tech areas). These projects overlap to mimic real world design situations. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

THTR 3840 - Independent Study: THTR

Prereq: Written permission of supervising instructor. **Semester Hours:** 1 to 3

THTR 3995 - Travel Study Topics

Semester Hours: 3 to 3

THTR 4090 - Senior Seminar & Project

A seminar integrating the development of four capstone projects (research, creative work, collaborative process and service/outreach) with a continuing forum focused on current issues in professional practice. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

THTR 4200 - Capstone: Theatre Practice

A seminar integrating the development of a production utilizing the combined talents of the senior class. Major production positions both on and off stage will be filled by as many students as possible area. **Semester Hours:** 3 to 3 **When Offered:** *SPRING*

THTR 4350 - Selected Studies in Theatre & Film

Course supplements the department's regular course offerings. Topics related to current productions and issues in Theatre or Film & community. Prereq: Must have 60 semester hours in THTR or permission of the instructor. Note: Open to both majors and non-majors. Can be taken more than once when topics vary. **Semester Hours:** 3 to 3 **When Offered:** *FALL*

THTR 4530 - Acting: Character and Media

Provides skill development and workshop experience for the actor in media work-film, television, and video. Students will analyze and present scene work in both live and media performances utilizing feedback from class and instructor. **Semester Hours:** 3 to 3

THTR 4560 - Topics in Theater

Various special interest topics in the study of production, theory, and analysis with an emphasis on theater. **Semester Hours:** 1 to 3

THTR 4570 - Creative Drama

Offered irregularly. Study of creativity, its role and application in dramatics, and the manner in which creative dramatics assists in the growth and development of children and youth.

Semester Hours: 3 to 3

THTR 4580 - Theatre for Children

Offered irregularly. Study of the processes involved in creating designed and substantial theatre for children, including an examination of various sources for dramatizing children's stories, fairy tales, poems and existing scripts. Includes a full production of a children's play to be performed by members of the class before audiences of children. **Semester Hours:** 3 to 3

THTR 4611 - American Theatre History

Semester Hours: 3 to 3

THTR 4730 - Advanced Scenic Design

Students will continue studies in graphic techniques, design styles and the integration of production design areas. Students will complete projects in scenic design for various production forms. Outcomes will include fully realized design projects with renderings, models and drafting. **Semester Hours:** 3 to 3

THTR 4760 - Topics in Design

A special topics investigating production design in traditional and non-traditional endeavors. Students will explore various design skills through projects and participation in departmental productions. Attendance and review of productions will be scheduled. **Semester Hours:** 3 to 3

THTR 4770 - Advanced Production Design Studio

Students will design a portfolio piece, professional quality project to be used in their BFA jury. This course provides a ?Paper project? in contrast to Senior Capstone Project class which could be a group project with a number of variables. **Semester Hours:** 3 to 3 **When Offered:** FALL

THTR 4820 - Theatre Practice

Advanced practicum in production work for an approved production. Credit hours are determined by faculty advisor and are dependent on the level of responsibility in the production. **Semester Hours:** 1 to 4

THTR 4840 - Independent Study: THTR

Semester Hours: 1 to 3

THTR 5530 - Acting: Character and Media

Provides skill development and workshop experience for the actor in media work - film, television, and video. Students will analyze and present scene work in both live and media performances utilizing feedback from class and instructor. **Semester Hours:** 3 to 3

THTR 5550 - Playwriting: The Short Form

Writing workshop in one-act plays, with special emphasis on the demands of production: space, acting, staging conventions and techniques. Students will write and revise several one act play scripts. **Semester Hours:** 3 to 3

THTR 5560 - Topics in Theatre

Various special interest topics in the study of production, theory, and analysis with an emphasis on theater. **Semester Hours:** 1 to 3

THTR 5570 - Creative Drama

Offered irregularly. Study of creativity, its role and application in dramatics, and the manner in which creative dramatics assist in the growth and development of children and youth.

Semester Hours: 3 to 3

THTR 5580 - Theatre for Children

Offered irregularly. Study of the processes involved in creating substantial theatre for children, including an examination of various sources for dramatizing children's stories, fairy tales, poems, and existing scripts. Includes a full production of a children's play to be performed by members of the class before audiences of children. **Semester Hours:** 3 to 3

THTR 5611 - American Theatre History

Offered irregularly. Investigates American theatres, methods of presentation, audiences, actors, acting, and economics from 1700 to the present, emphasizing contemporary practices and values as away of understanding and appreciating the place of theatre in this country as it has evolved and developed. **Semester Hours:** 3 to 3

THTR 5840 - Independent Study: THTR

Semester Hours: 1 to 3

THTR 5939 - Internship

Semester Hours: 1 to 6

THTR 5995 - Travel Study

Semester Hours: 3 to 3

THTR 6840 - Independent Study: THTR

Semester Hours: 1 to 3

THTR 6950 - Master's Thesis

Semester Hours: 1 to 6

Urban Teacher Education Courses (UEDU)

UEDU 1930 - Intro To Urban Education

This course examines sociological issues concerning urban schools, communities and provides an overview of school culture, diversity and social realities in American schools. Students will critically examine education issues that affect their lives, thei **Semester Hours:** 3 to 3

UEDU 4000 - Elementary Literacy Instruction and Assessment

Designed to prepare teacher candidates to develop an appreciation, understanding, and application of literacy assessment and instruction in the elementary classroom. Teachers learn how to use the results of various types of assessment to create a reading **Semester Hours:** 3 to 3

UEDU 4001 - Social Studies through Childrens' Literature & Writing

This course explores social studies through children's literature and writing instruction. Investigates best practices for literacy teachers to draw upon students' cultural and linguistic backgrounds, help students make connections between new informatio **Semester Hours:** 3 to 3

UEDU 4002 - Math Instr & Assmt

Designed to prepare elementary teachers to teach mathematics in elementary school while applying the six principles of the National Council of Teachers of Mathematics (NCTM), (equity, curriculum, teaching, learning, assessment and technology) to the four **Semester Hours:** 2 to 2

UEDU 4003 - Teaching Elementary Mathematics

This course is intended to increase the mathematical and pedagogical understandings and competence of elementary teachers, focusing on instructional principles and practices. Cross-listed with UEDU 5003. **Semester Hours:** 2 to 2

UEDU 4004 - Elementary Science Methods

This course explores issues in elementary school science learning and teaching. Teacher candidates will develop knowledge of the nature of science and science content, engage in scientific inquiry, work to identify student conceptions, and plan and enact **Semester Hours:** 3 to 3

UEDU 4010 - Social Foundations and Cultural Diversity in Urban Education

This course focuses on the role of cultural diversity in the United States school system and what this means for educators oriented toward social justice. The intention of this course is to have teacher candidates engage in exploring the most salient iss **Semester Hours:** 3 to 3

UEDU 4020 - Co-developing Culturally Responsive Classroom Communities

This course investigates how people learn and the implications of social and cultural learning for establishing engaging and culturally responsive learning communities. Through this course teacher candidates will better understand their roles in student **Semester Hours:** 3 to 3

UEDU 4040 - Exploring Diversity in Content and Pedagogy I

The purpose of this course is to explore multiple aspects of complex curriculum and instructional processes including: 1) standards-based instruction; 2) instructional design; and 3) formative & summative assessment, and 4) differentiation in curriculum **Semester Hours:** 3 to 3

UEDU 4050 - Exploring Diversity in Content and Pedagogy II

An essential feature of instructional and curriculum design, implementation, and evaluation is the ability of teachers to draw upon students' previous experience, help students make connections between new information and previous knowledge and skills, an **Semester Hours:** 3 to 3

UEDU 4100 - Secondary Literacy Instruction and Assessment

Provides knowledge and practice in using specific literacy methods to enhance students' content learning and literacy development in middle schools and high schools. Various methods of literacy assessment to guide instruction for students are emphasized. **Semester Hours:** 3 to 3

UEDU 4110 - Tchg Literacy in Eng Ed

Designed to meet both Colorado Literacy Council & Colorado Performance-Based Standards for prospective secondary English/LA teachers concerning Knowledge of Literacy, the course provides knowledge and practice using specific literacy methods to enhance st **Semester Hours:** 3 to 3

UEDU 4200 - Theory and Methods of Teaching Secondary English

Focuses on teaching/learning theories and practical classroom strategies for teaching English Language Arts to adolescent learners in middle school, junior high school and high school classes. Cross-listed with LCRT 5200. **Semester Hours:** 3 to 3

UEDU 4201 - Adolescent Literature

Reading and evaluation of fiction and non-fiction appropriate for students in middle and senior high school. Emphasis is on modern literature written for students from a variety of ethnic backgrounds. Course is also appropriate for teachers working with a **Semester Hours:** 3 to 3

UEDU 4300 - Curriculum and Methods in Secondary Math

Fosters pedagogical content knowledge for teaching mathematics in middle and high school classes. Promotes teaching consistent with the NCTM principles (Equity, Curriculum, Teaching, Learning, Assessment, and Technology), so ALL students become resourcef **Semester Hours:** 3 to 3

UEDU 4301 - Assessment In Math Education

Applied examination of traditional and alternative assessment techniques and practices in mathematics teaching. Focuses on questions/problems teachers can pose to probe students' mastery and understanding of standards-based mathematics, and what to look f **Semester Hours:** 3 to 3

UEDU 4400 - Theory and Pedagogy of Science Instruction

Examines current issues, strategies, materials, and technology related to the teaching and learning of science at the middle and secondary school levels. Science curriculum, teachers' pedagogical content knowledge, and research in science education are i **Semester Hours:** 3 to 3

UEDU 4401 - Inquiry Science Pedagogy and Practices

An in-depth study of inquiry science pedagogy and practices and how inquiry science supports standards-based education to make science accessible to ALL learners. The course provides a review of research on pedagogy and practices that support student und **Semester Hours:** 3 to 3

UEDU 4464 - History Methods

One of two courses on linguistically and culturally relevant history and social studies teaching. Course content includes geography, economics, civics, sociology, anthropology, and psychology, with emphasis on History. Course complements work in interns **Semester Hours:** 3 to 3

UEDU 4840 - Independent Study

Independent Study in Urban Community Teacher Education, Topic of study varies according to project. **Semester Hours:** 3 to 3

UEDU 4845 - Special Topics:

Course topics will vary depending on faculty and student interests. **Semester Hours:** 1 to 5

UEDU 4930 - Early Internship & Seminar

Teacher candidates considering pursuing teacher licensure in their undergraduate program engage in systematic observation of, participation in, design of, and reflection on curricular, instructional, and management practices across the full range of educa **Semester Hours:** 2 to 2

UEDU 4931 - Internship & Lrng Comm I

Teacher candidates engage in systematic observation of, participation in, design of, and reflection on curricular, instructional, and management practices across the full range of educational programs within a school. Additionally, teacher candidates par **Semester Hours:** 2 to 2

UEDU 4932 - Internship & Lrng Comm II

Teacher candidates engage in systematic observation of, participation in, design of, and reflection on curricular, instructional, and management practices across the full range of educational programs within a school. Additionally, teacher candidates par **Semester Hours:** 2 to 2

UEDU 4933 - Internship & Lrng Comm III

Teacher candidates engage in systematic observation of, participation in, design of, and reflection on curricular, instructional, and management practices across the full range of

educational programs within a school. Additionally, teacher candidates par **Semester Hours:** 6 to 6

UEDU 4934 - Extended Internship & Learning Community

Teacher candidates engage in systematic observation of, participation in, design of, and reflection on curricular, instructional, and management practices across the full range of educational programs within a school. Additionally, they participate in the **Semester Hours:** 4 to 8

UEDU 5000 - Elementary Literacy Instruction and Assessment

Designed to prepare teacher candidates to develop an appreciation, understanding, and application of literacy assessment and instruction in the elementary classroom. Teachers learn how to use the results of various types of assessment to create a reading **Semester Hours:** 3 to 3

UEDU 5001 - Social Studies through Childrens' Literature & Writing

This course explores social studies through children's literature and writing instruction. Investigates best practices for literacy teachers to draw upon students' cultural and linguistic backgrounds, help students make connections between new informatio **Semester Hours:** 3 to 3

UEDU 5002 - Math Instr & Assmt

Designed to prepare elementary teachers to teach mathematics in elementary school while applying the six principles of the National Council of Teachers of Mathematics (NCTM), (equity, curriculum, teaching, learning, assessment and technology) to the four **Semester Hours:** 2 to 2

UEDU 5003 - Teaching Elementary Mathematics

This course is intended to increase the mathematical and pedagogical understandings and competence of elementary teachers, focusing on instructional principles and practices. Cross-listed with UEDU 4003. **Semester Hours:** 2 to 2

UEDU 5004 - Elementary Science Methods

This course explores issues in elementary school science learning and teaching. Teacher candidates will develop knowledge of the nature of science and science content, engage in scientific inquiry, work to identify student conceptions, and plan and enact **Semester Hours:** 3 to 3

UEDU 5010 - Sci Fndts, Ctrl Dvrsty Urb Ed

This course focuses on the role of cultural diversity in the United States school system and what this means for educators oriented toward social justice. The intention of this course is to have teacher candidates engage in exploring the most salient iss **Semester Hours:** 3 to 3

UEDU 5015 - TFA Professional Learning Communities

The Teach for America Professional Learning Communities are designed to be a resource and forum for content groups to collaborate on best practices in assessment, instruction, and data gathering. As truly purposeful communities, they exhibit five characteristics. **Semester Hours:** 3 to 3

UEDU 5020 - Co-developing Culturally Responsive Classroom Communities

This course investigates how people learn and the implications of social and cultural learning for establishing engaging and culturally responsive learning communities. Through this course teacher candidates will better understand their roles in student learning. **Semester Hours:** 3 to 3

UEDU 5040 - Exploring Diversity in Content and Pedagogy I

The purpose of this course is to explore multiple aspects of complex curriculum and instructional processes including: 1) standards-based instruction; 2) instructional design; and 3) formative & summative assessment, and 4) differentiation in curriculum. **Semester Hours:** 3 to 3

UEDU 5050 - Exploring Diversity in Content and Pedagogy II

An essential feature of instructional and curriculum design, implementation, and evaluation is the ability of teachers to draw upon students' previous experience, help students make connections between new information and previous knowledge and skills, and assess learning. **Semester Hours:** 3 to 3

UEDU 5060 - Motivation and Engagement in Curriculum and Learning

This course focuses on the Six Cs of motivation and engagement; the framework designed to reach these students who are not complaint learners. This course allows teachers to think deeply about their role in motivating and engaging students and allows par. **Semester Hours:** 3 to 3

UEDU 5070 - Curriculum Theories in Urban Education

Topics in this course include: curriculum theory; the debate on the purpose of curriculum; multicultural education; critical race theory; social class and school improvement; the intended and unintended consequences of school accountability, reform and c. **Semester Hours:** 3 to 3

UEDU 5100 - Secondary Literacy Instruction and Assessment

Provides knowledge and practice in using specific literacy methods to enhance students' content learning and literacy development in middle schools and high schools. Various methods of literacy assessment to guide instruction for students are emphasized. **Semester Hours:** 3 to 3

UEDU 5110 - Tchg Literacy in Eng Ed

Designed to meet both Colorado Literacy Council & Colorado Performance-Based Standards for prospective secondary English/LA teachers concerning Knowledge of Literacy, the course provides knowledge and practice using specific literacy methods to enhance st. **Semester Hours:** 3 to 3

UEDU 5200 - Theory and Methods of Teaching Secondary English

Focuses on teaching/learning theories and practical classroom strategies for teaching English Language Arts to adolescent learners in middle school, junior high school and high school classes. Cross-listed with LCRT 5200. **Semester Hours:** 3 to 3

UEDU 5201 - Adolescent Literature

Reading and evaluation of fiction and non-fiction appropriate for students in middle and senior high school. Emphasis is on modern literature written for students from a variety of ethnic backgrounds. Course is also appropriate for teachers working with a **Semester Hours:** 3 to 3

UEDU 5300 - Curriculum and Methods in Secondary Math

Fosters pedagogical content knowledge for teaching mathematics in middle and high school classes. Promotes teaching consistent with the NCTM principles (Equity, Curriculum, Teaching, Learning, Assessment, and Technology), so ALL students become resourceful **Semester Hours:** 3 to 3

UEDU 5301 - Assessment In Math Education

Applied examination of traditional and alternative assessment techniques and practices in mathematics teaching. Focuses on questions/problems teachers can pose to probe students' mastery and understanding of standards-based mathematics, and what to look for **Semester Hours:** 3 to 3

UEDU 5400 - Theory and Pedagogy of Science Instruction

Examines current issues, strategies, materials, and technology related to the teaching and learning of science at the middle and secondary school levels. Science curriculum, teachers' pedagogical content knowledge, and research in science education are included **Semester Hours:** 3 to 3

UEDU 5401 - Inquiry Science Pedagogy and Practices

An in-depth study of inquiry science pedagogy and practices and how inquiry science supports standards-based education to make science accessible to ALL learners. The course provides a review of research on pedagogy and practices that support student understanding **Semester Hours:** 3 to 3

UEDU 5464 - History Methods

One of two courses on linguistically and culturally relevant history and social studies teaching. Course content includes geography, economics, civics, sociology, anthropology, and psychology, with emphasis on History. Course complements work in internships **Semester Hours:** 3 to 3

UEDU 5500 - Integrating Academic, Social, and Emotional Learning

This course offers principles and practices for teachers to: 1) cultivate and sustain their own authentic and intentional teaching practice; 2) support their students' social, emotional, and academic development; 3) collaborate with colleagues to foster positive learning environments **Semester Hours:** 3 to 3

UEDU 5510 - Creating Empowering Classrooms

This course will focus primarily on integrating themes of social justice and culturally responsive teaching into the classroom. The objectives will be to know the self as a teacher, to know his/her students and to know the socio-political-historical-econ **Semester Hours:** 3 to 3

UEDU 5520 - Mindful and Creative Thinking and Learning

This course addresses the role of art, group work, and physical surroundings in the development of mindful and creative thinking and learning. **Semester Hours:** 3 to 3

UEDU 5810 - Stdnt-Drvn Actn Rsrch

This is a two-semester course in which participating teachers will learn how to implement Critical Civic Inquiry (CCI) in their schools. CCI is a model of student-driven action research aimed at improving student voice in schools and facilitating student **Semester Hours:** 6 to 6

UEDU 5840 - Independent Study

Independent Study in Urban Community Teacher Education, Topic of study varies according to project. **Semester Hours:** 3 to 3

UEDU 5845 - Special Topics:

Course topics will vary depending on faculty and student interests. **Semester Hours:** 1 to 5

UEDU 5931 - Internship & Lrng Comm I

Teacher candidates engage in systematic observation of, participation in, design of, and reflection on curricular, instructional, and management practices across the full range of educational programs within a school. Additionally, teacher candidates par **Semester Hours:** 2 to 2

UEDU 5932 - Internship & Lrng Comm II

Teacher candidates engage in systematic observation of, participation in, design of, and reflection on curricular, instructional, and management practices across the full range of educational programs within a school. Additionally, teacher candidates par **Semester Hours:** 2 to 2

UEDU 5933 - Internship & Lrng Comm III

Teacher candidates engage in systematic observation of, participation in, design of, and reflection on curricular, instructional, and management practices across the full range of educational programs within a school. Additionally, teacher candidates par **Semester Hours:** 8 to 8

UEDU 5934 - Extended Internship & Learning Community

Teacher candidates engage in systematic observation of, participation in, design of, and reflection on curricular, instructional, and management practices across the full range of educational programs within a school. Additionally, they participate in the **Semester Hours:** 4 to 8

University Honors and Leadership Courses (UNHL)

UNHL 1100 - Introduction to University Honors and Leadership

The UNHL program was developed with the goal of creating academics with leadership skills to communicate their ideas and strong leaders with the ability to think critically, analyze issues from alternate perspectives and develop and communicate plausible solutions that take into consideration all points of view; the ideal end result of the program would be intelligent, ethical leaders and scholars in multiple fields of endeavor. The three areas around which the course will revolve are: a) Oil, b) Robots, c) Penicillin. Each of these topics allows multiple facets of a university education in the old sense to be explored from philosophy, history and art to chemistry, physics and engineering. There will be multiple means of exploration for each of these topics, from lectures and in-class discussions to field trips and engagement activities; there will be writing assignments in every phase that will focus on writing skills and writing for different audiences. **Semester Hours:** 3 to 3

UNHL 2755 - UHL Seminar

Semester Hours: 1 to 1

UNHL 2840 - Independent Study

Semester Hours: 1 to 6

UNHL 2850 - Faculty-Mentored Research

UNHL student research conducted under the supervision of UC Denver faculty. Prereq: Permission of sponsoring faculty mentor and UNHL Director. **Semester Hours:** 1 to 6

UNHL 2870 - Intensive Spanish

Combines both semesters of second-year Spanish in an intensive course for UNHL students. Prereq: UNHL 1100, Spanish 1020 or equivalent. Students who have not completed Spanish 1020 are required to demonstrate first-year language proficiency through placement exam prior to enrolling in this course. **Semester Hours:** 3 to 3

UNHL 2939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Cumulative GPA of 3.0 or above and permission of UNHL Director/Associate Director. **Semester Hours:** 1 to 3

UNHL 3010 - Leadership Behavior: Historical and Contemporary Perspectives

This course will provide students with an opportunity to integrate historical and contemporary issues in the study of leadership behavior. The course is based on leadership research and writing that reveals the leader as facilitator, collaborator, servant, and follower. The course will provide students with an opportunity to reflect, discuss, and write on topics and questions related to leadership and followership behavior. Prereq: UNHL 1100. **Semester Hours:** 3 to 3

UNHL 3100 - Ethics & Leadership: An Introduction

This one-semester ethics and leadership course will introduce students to the wide variety of some of the best leadership theories and their application to current ethical issues. Prereq: UNHL 1100. **Semester Hours:** 3 to 3

UNHL 3110 - Leadership, Communication, and Conflict

Leaders spend a significant amount of time managing conflict. This course is designed to explore the practical and theoretical basis of conflict and communication, and seeks to examine critical leadership processes that lead to the increased likelihood of organizational survival through successful conflict management. Prereq: UNHL 1100. **Semester Hours:** 3 to 3

UNHL 3120 - Leading For Change

Examination of the qualities and practices that make for effective change leadership. Case studies are used to focus on exemplary adaptive leaders from different sectors and cultures, examining the role they play in facilitating problem solving and change management. The role of emotional intelligence in the work of adaptive leadership is also emphasized. Prereq: UNHL 1100. **Semester Hours:** 3 to 3

UNHL 3250 - Leadership and Sustainability

This course examines issues of sustainability and the leadership challenges associated with the creation of sustainable social structures. Topics covered include a wide range of sustainability concerns such as: global population and food scarcity, alternative fuels and energy systems, biological and human health, leadership and sustainability program development, and symbolic and media representations of sustainability. Prereq: UNHL 1100 and second- or third-year status in the UNHL program. **Semester Hours:** 3 to 3

UNHL 3310 - Innovation, Cutting-Edge Knowledge, and Self-Guided Learning

The purpose of this course is to familiarize students with cutting-edge knowledge in major scientific and technological fields, against the background of cultural and artistic creativity, and to establish habits of lifelong, self-guided learning. To enhance this process, relevant faculty will be invited to speak about innovation in their field, both in class and during the planned panel discussion. Prereq: UNHL 1100 and second- or third-year status in the UNHL program.

Semester Hours: 3 to 3

UNHL 3501 - Love and Death in the Greek Classics

This course introduces students to classical Greek literature, focusing on love and death in Homeric epic, lyric poetry, tragic drama, the history and social science of Thucydides, the comedies of Aristophanes, and Plato's philosophical dialogues. **Semester Hours:** 3 to 3

UNHL 3502 - The History and Literature of Science in the 19th Century

This course will examine the literature of the 19th Century, the history of science in that period, and how those works and that history impact how we think about science today. Prereq: UNHL 1100. **Semester Hours:** 3 to 3

UNHL 3503 - Ethics, Academic Integrity, and Social Responsibility

This course combines research and class discussions in such a way that theories, viewpoints, and practical proposals regarding ethics and its application to intellectual responsibility are understood in their own right as well as in relation to other human activities. One daunting task will be facing up to the challenge of how to use the increasingly powerful information tools provided by universities. In the last third of the semester, students will be asked to work in teams on projects dealing with current ethics controversies. Prereq: UNHL 1100; not open to students who have taken UNHL 3100. **Semester Hours:** 3 to 3

UNHL 3520 - Ancient Human Environmental Impacts

This course is an exploration of the history of human engagement with their environment, focusing specifically on what ecological and archaeological data can tell us and how to best collect and conceptualize them. It will introduce students to key concepts in past human ecology to establish humanity's place in nature as well as examine a series of targeted case studies in order to trace how these relationships between humans and their ecosystems may have changed in scale and nature over time and in different contexts. Prereq: UNHL 1100. **Semester Hours:** 3 to 3

UNHL 3610 - Neuroscience and Society

Science has provided tantalizing glimpses into the nature of humans and the groups in which they live. This course will explore these matters in a way that encourages critical analysis of the relationship between our brains and the world. In the process, we will focus on the scientific method itself and its standing in relation to faith, ideology, and sociopolitical attitudes. Prereq: UNHL 1100. **Semester Hours:** 3 to 3

UNHL 3620 - Migration, Modernity, and Literacy

An examination of the causes, consequences, difficulties, and enduring problems of migration in contemporary global society. Political, legal, and educational problems of modernity and mass migration are analyzed. Course work includes social scientific research into historical and contemporary migration flows. Prereq: UNHL 1100. **Semester Hours:** 3 to 3

UNHL 3625 - Food Justice: Urban Agriculture, Place, and Culture

Addresses systemic inequities in access to fresh and healthy food as illustrated by neighborhoods termed "Food deserts." Questions examined include how sustainable/ethical relationships can be established between growing food and creating community, developing consciousness of place, and affirming cultural food/agricultural traditions. **Semester Hours:** 3 to 3

UNHL 3630 - Migration and Development

The impact on societies across the globe of a record 214 million-plus migrants living outside of their countries of birth. An interdisciplinary overview of the historical roots, causes, and consequences in receiving and sending nations of contemporary international migration flows. Topics include brain gain and brain drain, gender differences, immigrant diasporas, remittances, acculturation, circular migration illegal immigrant flows, and transnational human trafficking. Focus on experiences in North America, Europe, the Middle East, and Southeast

Asia. Students will have the opportunity to compare and contrast immigrant communities in the Denver region. Prereq: UNHL 1100. **Semester Hours:** 3 to 3

UNHL 3810 - Understanding and Dealing with Uncertainty

This course discusses the concept of uncertainty from multiple perspectives. What is uncertainty? How does it relate to other notions such as ignorance or variation of risk? How do we deal with uncertainty? We will consider ideas from mathematics, science, philosophy, religion, law, and psychology, among other fields. Students will be required to develop their own ideas on uncertainty in written form and/or participate in group presentations. Prereq: UNHL 1100. **Semester Hours:** 3 to 3

UNHL 3815 - Life in the Information Age

This course charts the contours, contradictions, and challenges of life in the Information Age. Adopting the perspective of technocapitalism, it explores how advances in communication technologies and changes in our economic system are altering our daily lives. Although radical change is always disruptive and disorienting, this course does not naively deny or pessimistically lament these changes. Rather, it chooses to focus on how persons can confront, address, adapt to, and excel in our rapidly changing world. Prereq: UNHL 1100 and second- or third-year status in the UNHL program. **Semester Hours:** 3 to 3

UNHL 3820 - The Economics of Life

Study of the economic approach to human behavior and its application to the analysis of markets and areas including politics, law, family life, and other social issues. Students will develop an understanding of how the economic approach differs from other approaches to analyzing these phenomena and for the possibilities and limitations of the economic approach. Prereq: UNHL 1100. **Semester Hours:** 3 to 3

UNHL 3825 - Irish Music, Peace, Politics, and Popular Culture

This course explores traditional and contemporary music in Ireland, examines Irish politics and the peace process in the Republic and Northern Ireland, and considers ways in which various forms of Irish popular culture have represented Irishness and Irish identity. **Semester Hours:** 3 to 3

UNHL 3830 - Jazz in American Culture

This class will explore the influence of jazz music (and related forms like ragtime and the blues) on American culture more generally. Specific topics to be explored include the Post-Reconstruction Race Politics, the Delta and the Great Migration, New Orleans, and the Harlem renaissance. Important figures of African-American literature, and Jazz & the Blues music will also be presented. Students will examine a multitude of literary and musical experiences through novels, short works, biographies, and listening. Prereq: UNHL 1100. **Semester Hours:** 3 to 3

UNHL 3835 - Evaluating Contemporary Cinema

This course focuses on the valuation of contemporary film in national and international contexts. Approaching film as an art form, students learn to critically examine and evaluate the

formal aspects of cinema, including narrative, cinematography, mise-en-scène **Semester Hours:** 3 to 3

UNHL 3870 - History and Culture of Spanish-Speaking World

Study of the history, culture, politics, and social environment of Spain and/or the Spanish-speaking world. Topics determined by instructor. Prereq: UNHL 1100; UNHL 2870, SPAN 2120, or demonstration of second-year Spanish language proficiency through placement exam.

Semester Hours: 3 to 3

UNHL 3910 - Ideology and Revolution

Was ideology invented in the 19th Century? Conservatism, Liberalism, Nationalism and Socialism were all invented in the short span of 1789 - 1870. In this course we read works of Edmund Burke, Karl Marx, J.S. Mill, and others who reacted to the French and Industrial Revolutions, hoping to repair the social fabric. Prereq: UNHL 1100. **Semester Hours:** 3 to 3

UNHL 3939 - Internship

Experiences involving application of specific, relevant concepts and skills in supervised employment situations. Prereq: Cumulative GPA of 3.0 or above and permission of UNHL Director/Associate Director. **Semester Hours:** 1 to 3

UNHL 3995 - Global Study

UNHL Academic Honors track and Leadership Studies track. Travel study, with location and topics to be selected by the instructor. Prereq: UNHL 1100, 2755, and permission of the UNHL Director. **Semester Hours:** 1 to 4

UNHL 4410 - Biology and Politics

Exploration of the reciprocal relationship between biology and politics. Topics include the impact of genetics and biological development on behavior, how public policies impact human and animal biology and the ecology of the earth, and their impact of nature and nurture on racial and gender differences. Prereq: UNHL 1100. **Semester Hours:** 3 to 3

UNHL 4840 - Independent Study

Semester Hours: 1 to 6

UNHL 4850 - Faculty-Mentored Research

UNHL student research conducted under the supervision of UC Denver faculty. Prereq: Permission of sponsoring faculty mentor and UNHL Director. **Semester Hours:** 1 to 6

UNHL 4991 - Senior Research Seminar I

Capstone experience for UNHL program. Students will work in teams on research projects of a multidisciplinary nature. Prereq: Fourth-year standing in the UNHL program or permission of the UNHL Director. **Semester Hours:** 2 to 2

UNHL 4992 - Senior Research Seminar II

Continuation of UNHL 4991. Students will work in teams on research projects of a multidisciplinary nature. Prereq: Fourth-year standing in the UNHL program or permission of the UNHL Director. **Semester Hours:** 2 to 2

Urban Design Courses (URBN)

URBN 6610 - Urban Design Studio I

Introduces urban structure and morphology, presenting city as complex, ecological organism comprised of interrelated systems. Working on urban/metropolitan scale, students deconstruct city into series of infrastructural layers, then recompose and restructure it in a more integrated fashion. **Semester Hours:** 6 to 6

URBN 6611 - Urban Design Studio II

Advances understanding of tools, methods and practice of urban design. Operating on neighborhood scale, studio emphasizes proactive role designers play in shaping regulations. Students consider real estate development economics, aesthetic criteria, historic preservation, and methods of effective community participation. **Semester Hours:** 6 to 6

URBN 6612 - International Studio

Immerses students in rapidly urbanizing international location. Primary focus on complexities of approaching international design practice from foreign perspective. Studio operates within network of professionals involved in contemporary urbanization projects. Students develop complete project and consider politics, economics and regulation. **Semester Hours:** 6 to 6

URBN 6633 - Form and Formation of Cities

This course investigates the origins and types of human settlements; the history of cities and urbanization; urban morphology and the evolution of the built environment; urban form principles and theory; and types of urbanism. Cross-listed with URPL 6350 **Semester Hours:** 3 to 3

URBN 6640 - History of the City

Introduces students to the history of global cities through selected typologies. Explores similarities and differences among cities considered against the larger cultural, political and socio-economic envelope of which they are part. Provides awareness of origins, growth and evolution of urban form. Cross-listed with ARCH 6240. **Semester Hours:** 3 to 3

URBN 6641 - Design Process/Practice

Advances current practice by exploring innovative methods of design analysis, production, representation, and communication. Community participation and civic engagement are integral components of seminar, and students are introduced to business of urban design through contact with prominent urban design professionals. **Semester Hours:** 3 to 3

URBN 6642 - Design Policy/Regulation

Argues that a role of urban designers is to shape built environment through combination of physical intervention and policy development. Students review urban economic and real estate trends and assess zoning/land use regulations to understand impacts on built environment quality. **Semester Hours:** 3 to 3

URBN 6643 - Graphics for Planners

Professional planners must be able to communicate their design concepts through graphical means. Students will learn to communicate with use of hand and technical drawings, color renderings, computer modeling and graphic layout design. Cross-listed with URPL 5500.

Semester Hours: 3 to 3

URBN 6644 - Sustainable Urbanism

This seminar explores the connections between ecology and urbanism. It will examine the multiple, interrelated ecological and social systems operating in the city. Students will explore innovative design processes and techniques that serve to create a h

Semester Hours: 3 to 3

URBN 6645 - Global Design Practice

This seminar will educate students about critical issues related to practicing design in a global context. Course will examine diverse issues of design and planning practice from contracts, communication and culture to remote research, design opportunities and ethics. Prereq: URBN 6612. **Semester Hours:** 3 to 3

URBN 6686 - Special Topics: Urban Design

Various topical concerns are offered in urban design history, theory, elements, concepts, methods, implementation strategies, and other related areas. **Semester Hours:** 1 to 6

URBN 6730 - International Studies Preparation

The course will prepare students to go to China, for 10-day International Summer School, 5-week China Summer Urban Design Joint Studio, 9-month Gensler Internship, and 1-year LA Dual Degree program. Topics include historic, geographic and cultural issues, and language lessons. Cross-listed with ARCH 6730, LDAR 6730, and URPL 6730. **Semester Hours:** 1 to 3

URBN 6840 - Independent Study: URBN

Studies initiated by students or faculty and sponsored by a faculty member to investigate a special topic or problem related to urban design. **Semester Hours:** 1 to 3

URBN 6930 - Urban Design Internship

Designed to provide professional practice experience in urban design. Emphasis on actual work experience in settings with client groups as students assist them in determining solutions. Program directors approval required. **Semester Hours:** 3 to 3

Urban & Regional Planning Courses (URPL)

URPL 5000 - Planning History and Theory

This course offers a comprehensive review of the major historical and theoretical developments in planning; the human aspects of planning as a social, political, and community-oriented process; public engagement; social justice; planning leadership and ad **Semester Hours:** 3 to 3

URPL 5010 - Natural and Built Environments

This course covers the fundamentals of physical planning; history and evolution of cities and urbanization; regional/global perspectives in planning; natural systems and ecology; environmental sustainability; environmental regulation and policy; and the i **Semester Hours:** 3 to 3

URPL 5020 - Planning Law and Institutions

This course covers the legal basis for planning; the evolution of planning law through a comprehensive review of landmark court decisions; and the types and hierarchies of governments, their powers and relationships, and how planning operates within those **Semester Hours:** 3 to 3

URPL 5030 - The Planning Profession

This course offers a comprehensive survey of the breadth and depth of the planning profession; different types of planners and the organizations that employ them; business aspects of planning; planning solicitation process; planning ethics; and profession **Semester Hours:** 3 to 3

URPL 5040 - Planning Methods

This course focuses on the most commonly applied quantitative and qualitative methods used in planning; data organization and management principles; and various ways to collect, analyze, and communicate data as a fundamental component of the planning proc **Semester Hours:** 3 to 3

URPL 5050 - Urban Development

This course explores how cities get built. Topics include an overview of the players, processes, politics and policies of real estate development; land division, entitlement, and regulation; site planning and development review; development finance; and p **Semester Hours:** 3 to 3

URPL 5060 - Planning Technologies Workshop

This course offers practice-based instruction in the most common planning-related technologies, including geographic information systems; graphics/photo-imaging; 3D/visualization; and mobile/web applications, with direct application of these technologies **Semester Hours:** 3 to 3

URPL 5070 - Planning Skills Workshop

As an introduction to the studio environment, this course provides students with hands-on, client-based experience and knowledge/skills development in physical planning and design; the planning process; planning contexts; plan making; and collaborative planning. **Semester Hours:** 3 to 3

URPL 5500 - Graphics for Planners

Professional planners must be able to communicate their design concepts through graphical means. Students will learn to communicate with use of hand and technical drawings, color renderings, computer modeling and graphic layout design. Cross-listed with URBN 6643.

Semester Hours: 3 to 3

URPL 6000 - Planning Project Studio

This studio course requires student teams to complete a substantial planning project using a comprehensive set of knowledge/skills for real-world clients. Five focus area options offered annually: Healthy Communities, Urban Revitalization, Regional Sustainability. **Semester Hours:** 6 to 6

URPL 6200 - Land Development Regulations

This course provides a comprehensive exploration of the various components of land development regulation, including preliminary plats; general/final development plans; zoning; PUDs; variances; site plan/development review; land use regulators; regulatory review. **Semester Hours:** 3 to 3

URPL 6205 - Plan Making

This course offers a broad overview of the various types of plans and the specific processes involved in their creation, including comprehensive plans; rural/small town plans; corridor plans; small area plans; campus/ institutional plans; special plans. **Semester Hours:** 3 to 3

URPL 6210 - Planning Politics & Engagement

This course focuses on the politics involved in planning and the planner's role in engaging with the public. Topics include planning advocacy; public meetings; public engagement techniques; diverse publics; controversial planning topics; mediation; and negotiation. **Semester Hours:** 3 to 3

URPL 6215 - Analyzing the Built Environment

This course explores various means and techniques used to analyze and characterize the built environment, including land division and development measures; urban morphology; and analyzing the spatial attributes of cities and regions at varying scales and **Semester Hours:** 3 to 3

URPL 6220 - Advanced Research Techniques

This course offers an in-depth look at a variety of research principles and techniques, including advanced qualitative and quantitative data collection; survey design; sampling; probability distributions; hypothesis testing; inferential statistics; other **Semester Hours:** 3 to 3

URPL 6249 - Project Management

Introduces the knowledge and skills of Project Management (PM) in a business environment. Emphasis will be on the entire project life cycle, the project management process groups and the knowledge areas as presented in the Project Management Body of Know **Semester Hours:** 3 to 3

URPL 6250 - Advanced GIS for Planners

This course expands beyond the fundamentals of Geographic Information Systems to offer intensive instruction in GIS analysis and cartography; advanced GIS applications and tools; GIS integration with other applications and technologies; innovations in geo **Semester Hours:** 3 to 3

URPL 6255 - Emerging Planning Technologies

This course explores the rapid pace of innovation in planning-related technologies and offers a comprehensive review of the latest web-based and mobile applications, and new technologies used in virtual participation/engagement, data collection/visualizat **Semester Hours:** 3 to 3

URPL 6300 - Planning for Healthy Communities

This course provides a comprehensive review of the relationship between human health and the built environment. Topics include the planner's role in understanding and promoting physical fitness; food access; walkability; environmental quality; active tran **Semester Hours:** 3 to 3

URPL 6305 - Healthy Community Assessments

This course focuses on defining, organizing, and conducting Health Impact Assessments, health measures, policies, best practices, and other types of studies and analyses related to the link between the built environment, public health, and healthy communi **Semester Hours:** 3 to 3

URPL 6310 - Community Food System Planning

Healthy communities require sustainable local and regional food systems. This course examines how communities can collaboratively develop and implement programs, processes and practices that help ensure food security and equitable access to healthy food o **Semester Hours:** 3 to 3

URPL 6349 - Global Health Studies II

Global Health Studies II: Comparative Health Systems. The course has three parts: (1) examines the social and cultural construction of sickness, systems of etiology cross culturally, the therapeutic encounter, varying roles of healer and patient, and t **Semester Hours:** 3 to 3

URPL 6350 - Form and Formation of Cities

This course investigates the origins and types of human settlements; the history of cities and urbanization; urban morphology and the evolution of the built environment; urban form principles and theory; and types of urbanism. Cross-listed with URBN 6633 **Semester Hours:** 3 to 3

URPL 6355 - Urban Redevelopment Strategies

This course focuses on the best practices and strategies used to help revitalize urban areas. Topics include urban infill development; TODs; adaptive reuse; historic preservation; design review; parking; public spaces; brownfield/grayfield redevelopment; **Semester Hours:** 3 to 3

URPL 6360 - Urban Infrastructure

This course provides a comprehensive exploration of transit planning, including transit planning fundamentals; transit routes and systems; transit modes and technologies; ridership modeling; scheduling; operations; funding; policies and regulation; relat **Semester Hours:** 3 to 3

URPL 6365 - Parks and Public Spaces

This course offers a focused look at the role of parks and public spaces in the development and activation of cities; their designs, qualities, and components; management /operations; funding; policies; equal access; role as community and economic develop **Semester Hours:** 3 to 3

URPL 6397 - Design Policy/Regulation

Argues that a role of urban designers is to shape built environment through combination of physical intervention and policy development. Students review urban economic and real estate trends and assess zoning/land use regulations to understand impacts on **Semester Hours:** 3 to 3

URPL 6398 - Design Process/Practice

Advances current practice by exploring innovative methods of design analysis, production, representation, and communication. Community participation and civic engagement are integral components of seminar, and students are introduced to business of urban **Semester Hours:** 3 to 3

URPL 6399 - Introduction to Sustainable Urban Infrastructure

Focuses on developing uniform vocabulary on sustainable infrastructure across science & technology, architecture & planning, public policy, and health & behavioral sciences. Students learn concepts, principles/pathways and evaluation techniques for promo **Semester Hours:** 3 to 3

URPL 6400 - Community Development

This course introduces community development, examining planners? and other stakeholders? roles in the field; key theories and practices; community dynamics; community-based organizations; asset-based development; social equity; and the influence of local **Semester Hours:** 3 to 3

URPL 6405 - Urban Housing

This course examines housing trends and patterns; supply and demand factors; housing policies; housing challenges (e.g., inequitable distribution, special needs, segregation/discrimination, and homelessness); sociological, demographic, and economic consid **Semester Hours:** 3 to 3

URPL 6410 - Social Justice in Planning

This course investigates various social justice issues encountered in planning, including conflict resolution; advocacy; environmental justice; social equity; culture and diversity; disadvantaged populations; public engagement techniques; affordability; e **Semester Hours:** 3 to 3

URPL 6449 - Urban Social Problems

Examines local government from the perspective of sociology and group dynamics. Course could include some or all of the following subjects: neighborhoods and community groups, class and race relations, community crime, social service issues, immigration, **Semester Hours:** 3 to 3

URPL 6450 - Urban Economic Systems

This course offers an exploration into urban economic systems; local economies; urban economic development; urban market assessment; local job generation; local scenario planning; local taxes/spending; and urban fiscal/economic policies and impacts at the **Semester Hours:** 3 to 3

URPL 6455 - Real Estate Dev. for Planners

This course offers a detailed analysis of the real estate development process; its relationship to the planning/design profession; the myriad variables involved in real estate development business and their interrelationships; and the factors of a project **Semester Hours:** 3 to 3

URPL 6460 - Green Real Estate Development

This course offers an exploration into the principles, designs, policies, and best practices relating to sustainable real estate development. Topics include infill development; transit-oriented development; LEED-ND; green buildings; universal design; mixe **Semester Hours:** 3 to 3

URPL 6499 - Preservation Theory and Practice

Philosophical questions in preservation practice; balancing significance in the environment with natural decay and demands for change. Policy issues as well as preservation and adaptation design. Cross-listd with HIPR 6010. **Semester Hours:** 3 to 3

URPL 6500 - Enviro. Policy & Regulation

This course focuses on the important field of environmental policy and regulation, including topics such as the National Environmental Policy Act (NEPA); environmental justice; environmental law; land use conflicts; contamination/remediation; environmenta **Semester Hours:** 3 to 3

URPL 6505 - Environmental Management

This course provides a comprehensive investigation of environmental management topics, including natural hazards/disasters and mitigation planning; ecosystems; air/water quality; natural area conservation and management; habitat protection; and environmen **Semester Hours:** 3 to 3

URPL 6510 - Energy/Natural Res. Planning

This course provides an overview of the issues associated with energy and natural resource planning. Topics include: energy policy; alternative energy development; water resources; extraction/mining; natural resource protection and regulation; resource management. **Semester Hours:** 3 to 3

URPL 6515 - Sustainable Planning & Design

This course takes a comprehensive look at the principles of sustainable planning and design. Topics include: sustainability defined; measuring sustainability; sustainable planning/practices; sustainable design; LEED and other sustainability programs and other. **Semester Hours:** 3 to 3

URPL 6548 - Defining & Measuring Sustainability

Unique cross-disciplinary course that teaches students community engagement strategies to define sustainability goals. Life cycle assessment and material flow analysis tools used to measure environmental sustainability benchmarks. Fieldwork applies both. **Semester Hours:** 3 to 3

URPL 6549 - Environmental Impact Assessment

The objective of this course is to provide the foundation for understanding the environmental impact assessment process, its legal context, and the criteria and methods for procedural and substantive compliance. Prereq: URPL 5530 or permission of instructor. **Semester Hours:** 3 to 3

URPL 6550 - Transportation Planning/Policy

This course examines policy issues in urban transportation planning: how transportation system design and political/institutional contexts shape transportation decision-making; major modes of urban transportation; and the social, environmental, economic, **Semester Hours:** 3 to 3

URPL 6555 - Transportation and Land Use

Examines basic concepts/methods in contemporary land use and transportation planning, including travel demand forecasting, traffic impact analysis, travel behavior, active transportation; and examples of transportation/land use interaction such as the inf **Semester Hours:** 3 to 3

URPL 6560 - Transit Planning

This course provides a comprehensive exploration of transit planning, including transit planning fundamentals; transit routes and systems; transit modes and technologies; ridership modeling; scheduling; operations; funding; policies and regulation; relationships. **Semester Hours:** 3 to 3

URPL 6565 - Pedestrian & Bicycle Planning

This course provides a detailed focus on the unique planning issues and factors involved with bicycle and pedestrian modes of transportation, including pedestrian/bicycle planning fundamentals; routes and systems; facilities and design requirements; funding. **Semester Hours:** 3 to 3

URPL 6600 - Regional Planning and Policy

This course explores the issues associated with planning and policymaking at the regional scale, including regional planning fundamentals; land use/transportation relationships; regional environmental constraints; regional cooperation and governance; regional **Semester Hours:** 3 to 3

URPL 6605 - Regional Economic Systems

This course offers a comprehensive investigation into regional economic systems; metropolitan economies; regional economic development; regional market assessment; job generation; taxes/spending; and fiscal/economic policies and impacts at the metropolitan **Semester Hours:** 3 to 3

URPL 6610 - Planning Sustainable Suburbs

This course takes a detailed look at the unique characteristics, issues, and challenges associated with planning and retrofitting automobile-oriented suburban communities and the opportunities for development of new communities using sustainable planning **Semester Hours:** 3 to 3

URPL 6615 - Small Town and Rural Planning

This course investigates the unique characteristics, issues, and challenges associated with planning in small and/or rural communities, including agricultural issues and farmland conservation; growth management; rural economic development; and small town **Semester Hours:** 3 to 3

URPL 6630 - Planning Studio I

Focuses on plan design in urban and regional planning and explores basic concepts, techniques, and issues related to urban planning, urban design, site planning, and environmental awareness. **Semester Hours:** 6 to 6

URPL 6632 - City Design Policy

Focuses on historical and contemporary relationship between regulatory policy and urban form. Course views zoning and land use regulations as ways of intervening in built environment's production, providing analytical methods for evaluating morphological outcomes suggested by given zoning codes. **Semester Hours:** 3 to 3

URPL 6635 - City Building

Examines changing norms in city planning and design from 1800 to the present and the production of the built environment by a variety of actors. Discussions of zoning, land use regulation, management, and the creation of ordinary/everyday urban space. **Semester Hours:** 3 to 3

URPL 6636 - Design Policy/Regulation

Argues that a role of urban designers is to shape built environment through combination of physical intervention and policy development. Students review urban economic and real estate trends and assess zoning/land use regulations to understand impacts on built environment quality. Cross-listed with URBN 6642. **Semester Hours:** 3 to 3

URPL 6637 - Comprehensive Planning

This course will review and analyze the theory, practice and role of comprehensive planning. The focus will be on moving from theory to practice while integrating real world examples, planning skills and methods, forecasts, data collection, surveys, public process, visioning and strategic planning. **Semester Hours:** 3 to 3

URPL 6649 - Environmental Planning I: Ecology

Studies the physiography, cultural factors, and aesthetic criteria in relation to landscape and spatial organization and structure. Covers data sources and interpretation, and looks at environmental factors in development and site analysis. Prereq: URPL 5510 or permission of instructor. **Semester Hours:** 3 to 3

URPL 6650 - Planning in the Dev. World

This course explores the issues involved in planning in the developing world; challenges and solutions for complex development; health/community issues; social justice; cultural/technological issues; environmental justice; funding; infrastructure developm **Semester Hours:** 3 to 3

URPL 6652 - Growth Management

Examines environmental and land regulations such as zoning, subdivision controls, and growth management systems in the context of public policy. Emphasis is placed on case studies, the analysis of past and present practices, improvement of existing systems, and the design of new regulatory systems. Prereq: URPL 5530 or permission of instructor. **Semester Hours:** 3 to 3

URPL 6655 - Comparative International Planning

This course investigates the global dimensions of planning, including a survey of global planning issues; a comparative analysis of planning philosophies, policies, techniques and approaches used throughout the world; and international planning coordinati **Semester Hours:** 3 to 3

URPL 6661 - Real Estate Development Finance

Focuses on financial analysis of real estate investments. Covers topics including measures of value, capitalization rate, capital budgeting, debt and equity markets and taxation. Cash flow and appraisal techniques, complex deal structuring, innovations in debt financing, syndications, tax shelters, tax-exempt financing, and micro-computer applications also are covered. **Semester Hours:** 3 to 3

URPL 6665 - Urban Market Analysis

Considers how markets for land and real estate, labor, capital, and private and public goods and services deploy resources and shape both social and spatial outcomes in urban settings. Posits models of policy intervention whose effects are transmitted by private actions orchestrated within the interlocking markets that form the economy of cities. Provides selected examples of the analysis of markets in such policy venues as land development, public transit, urban housing, and regional labor markets. Prereq: URPL 5510 and 5520. **Semester Hours:** 3 to 3

URPL 6681 - Sustainable Tourism Planning

This course is about impacts of tourism on fragile cultural and ecological environments: how to read and understand these impacts; ways to mitigate using planning approaches and tools; and how to share these understandings in order to persuade the public to take action. **Semester Hours:** 3 to 3

URPL 6730 - International Studies Preparation

The course will prepare students to go to China, for 10-day International Summer School, 5-week China Summer Urban Design Joint Studio, 9-month Gensler Internship, and 1-year LA Dual Degree program. Topics include historic, geographic and cultural issues, and language lessons. Cross-listed with ARCH 6730, LDAR 6730, and URBN 6730. **Semester Hours:** 1 to 3

URPL 6800 - Special Topics: Urban and Regional Planning

Various topical concerns are offered in urban and regional planning, theory, concepts, methods, case studies and practice. **Semester Hours:** 3 to 3

URPL 6805 - Planning Internship

Designed to provide professional practice experience in urban and regional planning. The emphasis is on actual work experience in settings with client groups as the students assist them in determining solutions to their problems. **Semester Hours:** 3 to 3

URPL 6810 - Independent Study: URPL

Studies initiated by students or faculty and sponsored by a faculty member to investigate a special topic or problem related to urban and regional planning. **Semester Hours:** 1 to 3

URPL 6900 - Planning Capstone A

Planning Capstone Experience requires students (individually or in small groups) to identify a planning study/thesis/project topic of their choosing, develop a detailed work plan/schedule, complete their study/thesis/project, and conclude with a final del **Semester Hours:** 0 to 0

URPL 6905 - Planning Capstone B

Planning Capstone Experience requires students (individually or in small groups) to identify a planning study/thesis/project topic of their choosing, develop a detailed work plan/schedule, complete their study/thesis/project, and conclude with a final del **Semester Hours:** 6 to 6

URPL 6910 - Planning in Other Cultures II: Field Experience

Students travel to their respective cities and undertake agreed-upon study proposals. Intends not only to help students consider their own design and planning attitudes, but also to help them see the world from a more balanced perspective. **Semester Hours:** 6 to 6

URPL 6950 - Thesis Research and Programming

Prereq: Minimum of 24 credit hours earned toward completion of Master of Urban and Regional Planning degree. **Semester Hours:** 3 to 3

URPL 6951 - Urban and Regional Planning Thesis

Semester Hours: 3 to 3

Women's Studies Courses (WGST)

WGST 1050 - Introduction to Women's and Gender Studies

This course provides an introduction to key concepts, themes and approaches to the interdisciplinary field of women's and gender studies. **Semester Hours:** 3 to 3

WGST 2900 - Smart Girl Leadership Training and Practicum

Provides leadership and mentoring training, and a practicum in which UCD students mentor teenagers in their community or school settings. Following completion of the training, students work as near-peer mentors and coaches with groups of teenage girls in the Denver community and apply the skills learned in their training. **Semester Hours:** 3 to 3

WGST 3010 - Sociology of Human Sexuality

Increases the understanding of differences in views of sexuality, specifically the link between sex and reproduction and its role as the motivation for gender roles and sex acts. Explores the history of sexuality, cross-cultural studies and primate modeling. Cross-listed with SOCY 3010. **Semester Hours:** 3 to 3

WGST 3020 - Gender, Sexuality and Race in American Popular Culture

This course explores the impact of popular culture on the lived experience of diverse women and men in America. Students will examine how cultural media (including film, television, print ads, music & digital games) can both reproduce and challenge existing structural inequalities. **Semester Hours:** 3 to 3

WGST 3080 - Sex and Gender

Causes and consequences of sex role differentiation at the individual, group and societal levels. Current issues related to changing norms and values concerning gender in modern society are examined. Cross-listed with SOCY 3080. **Semester Hours:** 3 to 3

WGST 3343 - Women in U.S. History

An analysis of women's place in society, in the work place, and in the political arena over the last 300 years. Cross-listed with HIST 3343. **Semester Hours:** 3 to 3

WGST 3450 - Twentieth Century Women Writers

Examines how women write about a specific theme, such as home, work, family, the "other," as well as how women's writing may differ from men's. Theme and genre vary. Cross-listed with ENGL 3450. **Semester Hours:** 3 to 3

WGST 3700 - Sociology of the Family

The family as a social institution. Historical development and contemporary cross-cultural analysis, with emphasis on the contemporary American family. Cross-listed with SOCY 3700. **Semester Hours:** 3 to 3

WGST 3840 - Independent Study: WGST

Semester Hours: 1 to 3

WGST 3939 - Internship

Designed experiences involving application of specific, relevant concepts and skills in supervised employment situations. Junior standing and 2.75 GPA. **Semester Hours:** 1 to 3

WGST 4215 - Women's Rights, Human Rights: Global Perspectives

Explores the global feminist movement's campaign to "engender" human rights. Examination of women's human-rights issues and the critique of this campaign as representing cultural imperialism. Prereq: 6 hours of political science or permission of instructor. Cross-listed with PSCI 4215. **Semester Hours:** 3 to 3

WGST 4230 - Women in the West

Focuses on ways in which women, from the mid-19th century through the mid-20th century, of different races, classes, and ethnic background, have interacted and been active participants in the development of the western states. Cross-listed with HIST 4230, HIST 5230 and WGST 5230. **Semester Hours:** 3 to 3

WGST 4248 - Gender, Globalization and Development

Analyzes the effects of globalization on the gendered processes of international development and strategies to empower women to achieve gender justice across race, class and national divisions. Cross-listed with PSCI 4248/5245 and WGST 5248. **Semester Hours:** 3 to 3

WGST 4303 - Sex and Gender in Modern Britain

Examines modern British history by focusing on sex and gender as central aspects in people's lives. Considers the ways gender shapes the realms of politics, economics, society and culture in Britain from the 18th century to the present. Cross-listed with HIST 4303/5303 and WGST 5303. **Semester Hours:** 3 to 3

WGST 4306 - Survey of Feminist Thought

Examines changes and continuities in feminist thought from the 18th century to the present, using historical and literary materials. Explores the ways that women's characteristics, experiences, and capabilities have been understood and challenged. Cross-listed with ENGL 4306, 5306, HIST 4306, 5306, WGST 5306. **Semester Hours:** 3 to 3

WGST 4307 - History of Sexuality

Explores the relationships between gender and norms, sexual practice, and ideas about sexuality in Europe and the United States. Examines how sex and sexuality have changed over time and how those changes relate to social, cultural, political and economic history. Cross-listed with HIST 4307/5307 and WGST 5307. **Semester Hours:** 3 to 3

WGST 4345 - Gender, Science, and Medicine: 1600 to the Present

Examines the ways science and medicine have both shaped and been shaped by ideas about gender. Pays particular attention to the relationship between scientific/medical ideas about the sexes and the social organization of gender. Cross-listed with HIST 4345/5345 and WGST 5345. **Semester Hours:** 3 to 3

WGST 4420 - Goddess Traditions

Explores the many forms which goddesses have assumed through history, including the Neolithic Great Mother and her heiresses in the ancient Mediterranean cultures, such as: Isis, Ishtar, Demeter, Hecate, Aphrodite, Artemis, Athena and others, and their parallels in India. Goddess traditions have encompassed a full spectrum from virgins to Great Mothers to dark underworld goddesses of death and destruction. Cross-listed with RLST 4420/5420 and WGST 5420. **Semester Hours:** 3 to 3

WGST 4510 - Whores and Saints: Medieval Women

Studies how women are presented in texts, as well as works by women. Investigates the roles open to women and societal attitudes toward women, who were considered seductresses, saints, scholars and warriors in the middle ages. Prereq: Nine hours of literature courses or instructor permission. Cross-listed with ENGL 4510/5510, RLST 4730/5730 and WGST 5510. **Semester Hours:** 3 to 3

WGST 4511 - French Women Writers

Designed to explore writings by French and Francophone women from the Middle Ages to the present. Addresses the question of what it means to be a woman and want to write. The selections include a wide variety of genres: autobiographical writings, stories, poems, manifestos, letters, political and historical documents. Prereq: FREN 3112 or FREN 3122 plus one other 3000-level French course or permission of instructor. Cross-listed with FREN 4510/5510 and WGST 5511. **Semester Hours:** 3 to 3

WGST 4540 - Race, Class, and Gender in Spanish Golden Age Literature

Explores works of various genres in relation to their social and political contexts in 16th and 17th century Spain, emphasizing the cultural attitudes toward race, class, and gender that inform them. Prereq: SPAN 3252 and at least one additional literature course. Cross-listed with SPAN 4540/5540 and WGST 5540. **Semester Hours:** 3 to 3

WGST 4555 - International Women's Resistance

Examines local and international struggles of women to build peace and justice by resisting systems of inequality such as colonialism, racism, patriarchy, globalization, and religious intolerance. Cross-listed with PSCI 4555/5555, ETST 4555 and WGST 5555. **Semester Hours:** 3 to 3

WGST 4564 - Gender and Politics

Analysis of the political experience of women and of strategies for change. Emphasis on the U.S. Cross-listed with PSCI 4564. **Semester Hours:** 3 to 3

WGST 4710 - Women and Religion

A sociological exploration of the contemporary roles of women in religion. Course examines American and world religious groups with an eye to women's involvement. Considers how women have changed these traditions as they take on leadership roles and discusses the tensions that arise within these traditions as a result of their expanded participation. Cross-listed with HUMN 5710, SSCI 4710/5710, WGST 5710, RLST 4710/5710. **Semester Hours:** 3 to 3

WGST 4827 - Women and the Law

Examines the role of the courts in the development of public policy toward women; how the legal system affects the economic power, family roles, safety and political participation of women. Cross-listed with PSCI 4827 and ETST 4827. **Semester Hours:** 3 to 3

WGST 4933 - Philosophy of Eros

Why is philosophy an erotic activity and what are the implications of this insight? We will explore these issues, first, by reading Plato's erotic dialogues: Lysis, Symposium and Phaedrus. Then we will focus on Freud's influential (and controversial) appropriation of Plato's thought in the writings that span his career, from The Interpretation of Dreams (1900) to Civilization and its Discontents (1930) and beyond. Finally, we will survey post-Freudian theories of eros, such as Michel Foucault's History of Sexuality, as well as the more recent contributions of thinkers such as Jonathan Lear, Thomas Nagel, Martha Nussbaum and Slavoj Zizek. Cross-listed with PHIL 4933/5933, SSCI 5933, HUMN 5933 and WGST 5933. **Semester Hours:** 3 to 3

WGST 5230 - Women in the West

Focuses on ways in which women, from the mid-19th century through the mid-20th century, of different races, classes, and ethnic background, have interacted and been active participants in the development of the Western states. Cross-listed with WGST 4230 and HIST 4230/5230.

Semester Hours: 3 to 3

WGST 5248 - Gender, Globalization and Development

Analyzes the effects of globalization on the gendered processes of international development and strategies to empower women to achieve gender justice across race, class and national divisions.

Cross-listed with WGST 4248 and PSCI 4248/5245. **Semester Hours:** 3 to 3

WGST 5303 - Sex and Gender in Modern Britain

Examines modern British history by focusing on sex and gender as central aspects in people's lives. Considers the ways gender shapes the realms of politics, economics, society and culture in Britain from the 18th century to present. Cross-listed with WGST 4303 and HIST 4303/5303.

Semester Hours: 3 to 3

WGST 5306 - Survey of Feminist Thought

Examines changes and continuities in feminist thought from the 18th century to the present, using historical and literary materials. Explores the ways that women's characteristics, experiences, and capabilities have been understood and challenged. Cross-listed with ENGL 4306, 5306, HIST 4306, 5306, WGST 4306. **Semester Hours:** 3 to 3

WGST 5307 - History of Sexuality

Explores the relationships between gender and norms, sexual practice, and ideas about sexuality in Europe and the United States. Examines how sex and sexuality have changed over time and how those changes relate to social, cultural, political and economic history. Cross-listed with WGST 4307 and HIST 4307/5307. **Semester Hours:** 3 to 3

WGST 5345 - Gender, Science and Medicine: 1600 to the Present

Examines the ways science and medicine have both shaped and been shaped by ideas about gender. Pays particular attention to the relationship between scientific/medical ideas about the sexes and the social organization of gender. Cross-listed with WGST 4345 and HIST 4345/5345.

Semester Hours: 3 to 3

WGST 5420 - Goddess Traditions

Explores the many forms which goddesses have assumed through history, including the Neolithic Great Mother and her heiresses in the ancient Mediterranean cultures, such as: Isis, Ishtar, Demeter, Hecate, Aphrodite, Artemis, Athena and others, and their parallels in India. Goddess traditions have encompassed a full spectrum from virgins to Great Mothers to dark underworld goddesses of death and destruction. Cross-listed with WGST 4420 and RLST

4420/5420. **Semester Hours:** 3 to 3

WGST 5510 - Whores and Saints: Medieval Women

Studies how women are presented in texts, as well as works by women. Investigates the roles open to women and societal attitudes toward women, who were considered seductresses, saints, scholars and warriors in the middle ages. Prereq: Nine hours of literature courses or instructor permission. Cross-listed with WGST 4510, ENGL 4510/5510 and RLST 4730/5730. **Semester**

Hours: 3 to 3

WGST 5511 - French Women Writers

Designed to explore writings by French and Francophone women from the Middle Ages to the present. Addresses the question of what it means to be a woman and want to write. The selections include a wide variety of genres: autobiographical writings, stories, poems, manifestos, letters, political and historical documents. Prereq: FREN 3112 or 3122 plus one other 3000-level French course or permission of instructor. Cross-listed with WGST 4511 and FREN 4510/5510. **Semester Hours:** 3 to 3

WGST 5540 - Race, Class and Gender in Spanish Golden Age Literature

Explores works of various genres in relation to their social and political contexts in 16th and 17th century Spain, emphasizing the cultural attitudes toward race, class, and gender that inform them. Prereq: SPAN 3252 and at least one additional literature course. Cross-listed with WGST 4540 and SPAN 4540/5540. **Semester Hours:** 3 to 3

WGST 5555 - International Women's Resistance

Examines local and international struggles of women to build peace and justice by resisting systems of inequality such as colonialism, racism, patriarchy, globalization, and religious intolerance. Cross-listed with WGST 4555, ETST 4555 and PSCI 4555/5555. **Semester Hours:** 3 to 3

WGST 5710 - Women and Religion

A sociological exploration of the contemporary roles of women in religion. Course examines American and world religious groups with an eye to women's involvement. Considers how women have changed these traditions as they take on leadership roles and discusses the tensions

that arise within these traditions as a result of their expanded participation. Cross-listed with HUMN 5710, SSCI 4710/5710, WGST 4710, RLST 4710/5710. **Semester Hours:** 3 to 3

WGST 5720 - Sexuality, Gender and Their Visual Representations

Studies sexuality, gender and identity representation from classical antiquity through the present in the visual arts. Uses the literature of visibility, feminism, race and queer theory. Explores representations of femininity, masculinity and androgyny and their reinforcement and challenge to gender-identity norms. Cross-listed with HUMN 5720 and SSCI 5720. **Semester Hours:** 3 to 3

WGST 5900 - Smart Girl Coaching Training and Practicum

Course provides training (lecture and role-playing) in coaching and mentoring which will be applied to support near-peer guides in delivering the Smart Girl curriculum in school settings. Following the completion of the training, students work as coaches for teams of near-peer mentors and groups of teenage girls in the Denver Community, and apply the skills learned in their training. **Semester Hours:** 3 to 3

WGST 5933 - Philosophy of Eros

Why is philosophy an erotic activity and what are the implications of this insight? We will explore these issues, first, by reading Plato's erotic dialogues: "Lysis," "Symposium" and "Phaedrus." Then we will focus on Freud's influential (and controversial **Semester Hours:** 3 to 3

WGST 6010 - Methods and Theories of Feminism and Gender Studies

Provides graduate-level interdisciplinary study in historiography, methodologies and theories of women's, gender and sexuality studies and considers how culture is constructed around these categories. Cross-listed with SSCI 6010. **Semester Hours:** 3 to 3