



University of Colorado **Denver**

2016-17 Graduate Catalog

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Office of the Registrar

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2016-2017 Graduate Catalog

**CU Denver**

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at Larimer Street
ucdenver.edu

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Phone: 303-315-2183

Email:

Graduateadmissions@ucdenver.edu

Office Location

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1251
Denver, CO 80204

Mailing Address

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Denver, CO 80217-3364

International Admissions

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application@ucdenver.edu

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The 2016-2017 CU Denver catalog is considered the source for academic and programmatic requirements for students entering programs during the Fall 2016, Spring 2017, and Summer 2017 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.

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.

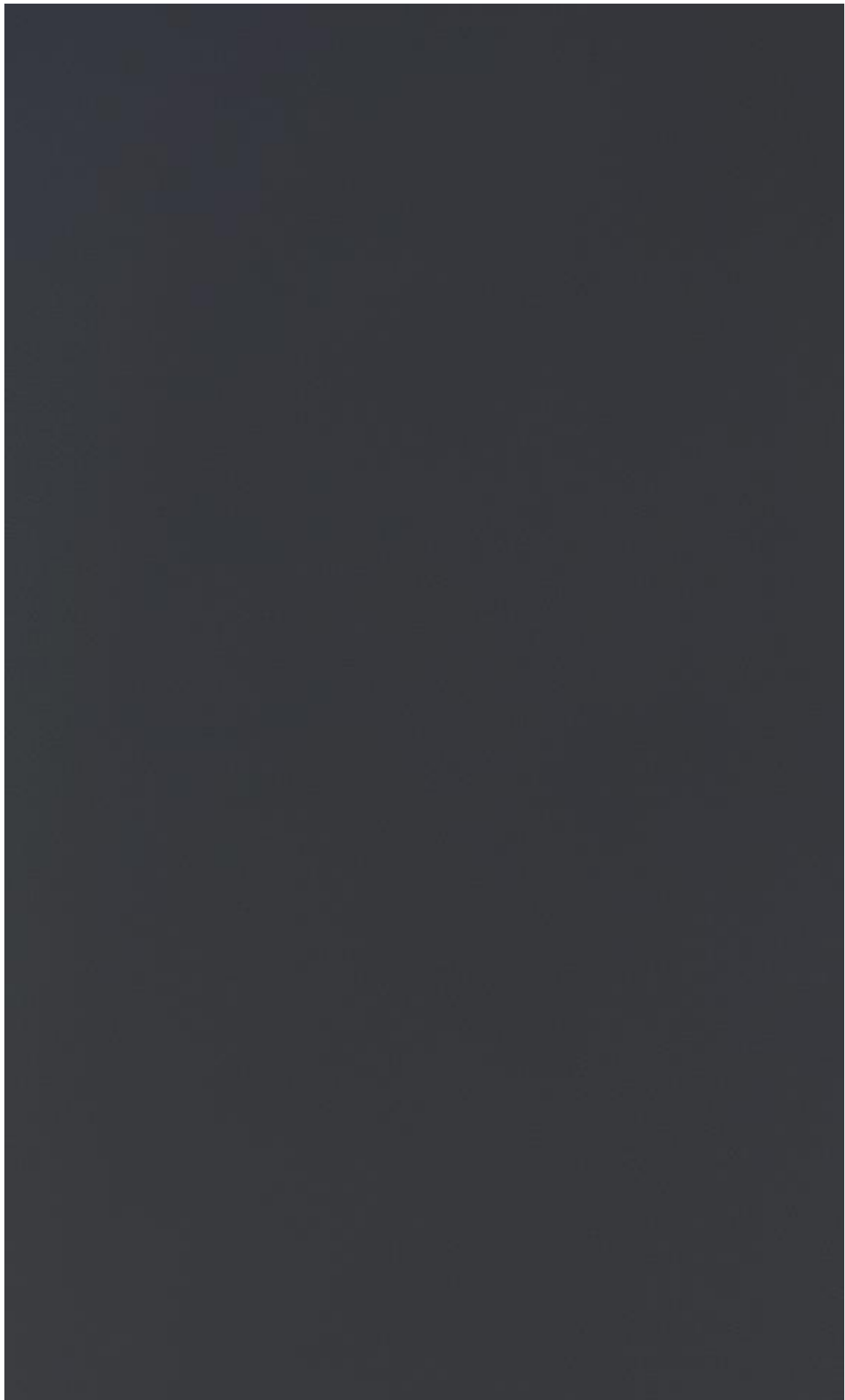
Previous editions of this catalog are available [online](#).

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

About CU Denver

Click on any of the following links to go quickly to that information:

- [About Our Students](#)
- [Academic Programs](#)
- [Accreditation](#)
- [CU Anschutz Medical Campus-Aurora](#)
- [CU Denver Campus](#)
- [Executive Team](#)
- [History and Evolution](#)
- [Mission, Vision and Values](#)
- [Quick Facts](#)
- [Related Organizations](#)
- [University of Colorado System](#)



Welcome to a university for the 21st century.

The University of Colorado Denver (CU Denver) unites quality academics, ambitious research and creative work, civic consciousness and driven students-all in the lively heart of downtown Denver. We are the region's premier public urban research university.

Here at the University of Colorado Denver you will benefit from:

Academic choices-more than 100 degree programs in seven schools and colleges;

Powerful connections-to partnerships, projects, internships and career connections in downtown Denver; to academic connections for health-related careers at the CU Anschutz Medical Campus; and to course offerings from all four CU campuses at the new CU South Denver location in Parker, Colo.; and

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 gifted 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 earns 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.

Dorothy A. Horrell, PhD
Chancellor

Executive Team

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Chancellor, University of Colorado Denver
BS, Colorado State University
M.Ed, Colorado State University
PhD, Colorado State University

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Chancellor, CU Anschutz Medical Campus
BA, Middlebury College

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Provost and Executive Vice Chancellor for Academic and Student Affairs
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PhD, University of London (England)

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MBA, University of New Mexico

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BS, University of Colorado Boulder

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AB, Dartmouth College
MD, Harvard Medical School

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Vice Chancellor for Research

*MS, Long Island University
PhD, The Johns Hopkins University*

Andrea Wagner

Vice Chancellor for Advancement, CU Denver
*BA, University of Colorado Boulder
MA, University of Colorado Denver*

[University of Colorado Denver | Anschutz Medical Campus](#)

Note: This catalog provides course listings only for CU Denver, one of the two campuses that make up the University of Colorado Denver | Anschutz Medical Campus.

The University of Colorado Denver | Anschutz Medical Campus was formed July 1, 2004 by the consolidation of two established campuses 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 CU Anschutz Medical Campus (CU Anschutz) in Aurora. Educating more than 14,000 students at CU Denver downtown plus nearly 4,300 students in health sciences programs at CU Anschutz, the consolidated entity is one of the nation's top public urban research universities.

The University of Colorado Denver | Anschutz Medical Campus offers a unique experience for students. CU Denver is in the heart of the city-the business, cultural and political capital of the West. CU Anschutz in nearby Aurora is among the nation's newest health sciences campuses, 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 CU Anschutz make CU Denver an excellent place to start a health care career.

The University of Colorado Denver | Anschutz Medical Campus enrolls students from 50 states and 86 countries, and 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 CU Anschutz. 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 | Anschutz Medical Campus:

- **Small class sizes:** average undergraduate student-to-teacher ratio is 16:1.
- **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. CU Denver 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 | Anschutz Medical Campus is a major university for the coming century.

CU Denver

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 \(CAM\)](#)
[Business School](#)
[School of Education & Human Development](#)
[College of Engineering and Applied Science](#)
[College of Liberal Arts and Sciences](#)
[School of Public Affairs](#)

CU 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

Contact the individual school or program coordinator for details.

Mission, Vision and Values

Mission

The University of Colorado Denver | Anschutz Medical Campus 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 | Anschutz Medical Campus 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 | Anschutz Medical Campus embraces excellence in:

Learning and Scholarship

The University of Colorado Denver | Anschutz Medical Campus 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 | Anschutz Medical Campus 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 | Anschutz Medical Campus 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

The University of Colorado Denver | Anschutz Medical Campus 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 | Anschutz Medical Campus 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 at:

<http://www.ucdenver.edu/about/WhoWeAre/Chancellor/Documents/FinalStrategicPlan.pdf>

University of Colorado System

The University of Colorado is a system of four campuses located in Boulder, Colorado Springs, Denver and 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

District 1

term expires 2017

John Carson

District 6

term expires 2021

Glen Gallegos

District 3

term expires 2019

Irene C. Griego, Vice Chair

District 7

term expires 2021

Kyle Hybl, Chair

District 5

term expires 2019

Stephen Ludwig

At Large

term expires 2019

Sue Sharkey

District 4

term expires 2017

Linda Shoemaker

District 2

term expires 2021

[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

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 the Fitzsimons Army Base 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
- 2011 Regents approve name change, to University of Colorado Denver | Anschutz Medical Campus

Accreditation

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

The commission can be contacted at:

230 South LaSalle Street, Suite 7-500
Chicago, IL 60604

Telephone: 1-800-621-7440

Many professional organizations have also granted accreditation to specific academic 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
- Colorado State Board of Education
- Commission on Accreditation of Healthcare Management Education
- Council for Accreditation of Counseling and Related Educational Programs
- Council for the Accreditation for Educator Preparation
- Landscape Architecture Accreditation Board
- National Architectural Accrediting Board
- National Association of Schools of Music
- National Association of Schools of Public Affairs and Administration
- 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, architecture, 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 send an inquiry to continuingeducation@ucdenver.edu.

About Our Students

The diversity of our student body is a source of deep pride. Ethnic minority students make up 34 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 13 and 77, 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 16:1.

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

The University of Colorado Denver Alumni Association provides programs and services of mutual benefit to graduates and the university. Founded in 1976, the CU Denver Alumni 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 Denver - Office of University Advancement

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

Telephone: 303-315-3601

Fax: 303-315-2063

Email: development@ucdenver.edu

The University of Colorado Denver Office of Development collaborates with faculty, staff, donors, alumni, and friends to raise private support for the university.

CU Denver academic leadership establishes priorities for private support, and gifts are directed to the specific schools, program, or purpose that the donor designates. CU Denver Development fundraisers identify and/or generate interest in the university, assist donors in gift planning, and solicit gifts in collaboration with academic partners and leaders. (Gift funds are managed and invested by the partner University of Colorado Foundation, which also manages the university endowment.)

These gifts endow scholarships and professorships, further research, enrich academic programs, upgrade and construct facilities, and support projects and programs in all areas of the university.

University Quick Facts

Locations

Denver Campus (Auraria)

Anschutz Medical Campus (Aurora)

Total Enrollment

18,459 students enrolled in fall 2015*

57% undergraduate

33% graduate

10% first professional

72% full time

16% out-of-state residents

6% international students

Degrees

Bachelor's, master's, doctoral, first-professional

Programs

143 degree programs

Schools and Colleges

Denver Campus

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
Graduate School

Anschutz Medical Campus

School of Dental Medicine
School of Medicine
College of Nursing
School of Pharmacy
Colorado School of Public Health
Graduate School

Research Funding

More than \$400 million in sponsored research

Alumni

134,500 (63% live in Colorado)‡

Denver Campus Attributes

Enrollment

14,375*

10,042 Undergraduate* (48% male, 52% female)
4,333 Graduate* (45% male, 55% female)

Student-Faculty Ratio

16:1‡

Incoming

Freshmen: 1,372

Transfers: 1,373

Graduate Students: 902

Diverse Population

34% ethnic minority

Undergraduate: 41%

Graduate: 18%

Average age: 26

Undergraduate: 24

Graduate: 31

[Student Body](#)

From 50 states and 64 countries*

[Bragging Rights](#)

U.S. News & World Report America's Best Graduate Schools, 2015

School of Public Affairs, Top Schools - 29

Environmental Policy & Management - 10

Nonprofit Management - 14

Public Administration - 24

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

[Anschutz Medical Campus Attributes](#)

Enrollment

4,084*

Undergraduate: 513* (14% male, 86% female)
Graduate: 1,729* (25% male, 75% female)
First Professional: 1,842* (44% male, 56% female)

Diverse Population

24% ethnic minority

Average Age

Undergraduate: 29
Graduate: 31
First Professional: 27

Bragging Rights

U.S. News & World Report, America's Best Graduate Schools, 2015
(Unless otherwise noted, it is the most recent year ranked)

Health Disciplines

Nursing, MS - 15

Nurse midwifery - 13

Nurse practitioner:
Family - 16
Pediatrics -5

Pharmacy, PharmD (2008) - 23

Physician Assistant, MS, PhD - 5

Schools of Medicine

Primary care - 8

Research - 35

Specialties:

Family medicine - 7

Pediatrics - 5

The Sciences

Biological sciences: Graduate School, Anschutz Campus - 75

*Fall 2015 end-of-term

‡2014-2015 Fiscal Year Data

Information for Graduate Students

Graduate School

Please click the following links to go directly to that section

Graduate School Contacts	Requirements for Graduate Degrees
Admissions Requirements	Certificate Program
Application Procedures	Master's Degree
New Student Orientation	Doctoral Degree
Assistantships and Fellowships	

Welcome to the Graduate School at CU Denver. 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. 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.

The mission of the Graduate School is three-fold in support of the University, our students, the faculty, and our training programs.

1. **EDUCATION:** to enhance and advance outstanding educational experiences for all members of the university and the adjacent community through excellence in graduate education;
2. **INNOVATION:** to encourage and support excellence and innovation in research, creative and scholarly work;
3. **LEADERSHIP:** to recruit and train the next generation of highly educated leaders from diverse backgrounds to serve and lead in our communities, nation and the world

Not all post-baccalaureate programs at CU Denver|Anschutz fall under the auspices of the Graduate School. Programs that offer “professional” degrees that are independently accredited are overseen by their respective School or College.

For those Graduate Programs or Certificates that fall under the auspices of the Graduate School, the relevant administrative responsibilities are distributed between the central Graduate School office and the home School or College. Those programs having a diamond designation (“Graduate School Rules apply to this program”) are programs within the Graduate School and follow the rules outlined in the Graduate School Rules and this section. Individual graduate programs are detailed in the school/college sections of this catalog.

Graduate School Contacts

Dean: David Engelke

Associate Dean: Inge Wefes

Assistant Dean: Jessica Halliday

Assistant Dean: Shawna McMahon

Director of Graduate Admissions and Technology: Krystal Fox

CEAS Application Specialist: Natalya Semyonova

CLAS Application Specialist: Kelly Santa Maria

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

Admissions Requirements

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 coursework at a College or University outside the USA (not taken as part of a semester abroad program) must include original transcripts and documentation in English (or certified English translation) of the transcript as evaluated by the CU Denver Office of International Affairs.
- have an undergraduate grade point average of 3.00 or better ("A" is equal to 4.0) or a 3.00 or better GPA in twelve (12) credit hours or more of a partially completed graduate level 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:

- original transcripts and documentation in English (or a certified English translation) of the completion of a Bachelor's degree, Master's degree or the equivalent as evaluated by the CU Denver Office of International Affairs;
- financial and other documents as required by the International Student and Scholar Services Office to process immigration documents;
- a certified English translation of all academic records and references not in English, and
- evidence of proficiency in English as defined in the University policy Official Measures of English Language Proficiency for Admission of International Students (effective July 1, 2012) by satisfying one of the following criteria:
 - the applicant is a citizen of a country whose official language is English, which includes Australia, Belize, Botswana, Canada (except Quebec), Commonwealth Caribbean, Ghana, Great Britain, Ireland, Kenya, New Zealand, Scotland, Singapore, South Africa, and Zimbabwe; or
 - the applicant obtains a composite score of 75 or above on the Test of English as a Foreign Language (TOEFL, iBT) (minimum subscores of 15 in Reading, 15 in Listening, 19 in Speaking, and 20 in Writing) or a composite score of 6.5 or

above on the International English Language Testing System (IELTS) (minimum subscores of 5.5 in each area). Schools or Colleges, or individual graduate programs may require higher standards on these tests; or

- the applicant has graduated from CU Denver's ESL Academy; or
- the applicant has graduated with a bachelor's degree or higher from the United Kingdom or a US accredited school abroad where the language of instruction was English. (The applicant must provide a letter from the home institution verifying this information if the language of instruction is not clearly indicated on the official academic transcript.); or
- the applicant has graduated with a bachelor's degree or higher from a US accredited school abroad where the language of instruction was English. (The applicant must provide a letter from the home institution verifying this information if the language of instruction is not clearly indicated on the official academic transcript.); or
- the applicant has earned a bachelor's degree in the US or has successfully completed a minimum of 2 semesters (a minimum of 12 credits) of full-time study in a graduate-level master's program at an accredited institution in the US and obtained a "B" (3.00) cumulative GPA or higher.

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 a Provisional degree student. On the provisional form that accompanies the student's admission documents, the graduate Program Director outlines the rationale to support such an admission. The form 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 make a determination and advise the Program Director and the student of the conditions that the student must satisfy in order to be transferred from Provisional to Regular status. The Dean, in consultation with the Program Director, will also determine the time period (1 or 2 semesters for full-time students and a maximum of 4 semesters for part-time students) in which these conditions must be 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 degree student. Provisionally admitted students 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 indicated requirements have been met and the student's status has been converted to that of a Regular student, or if the student failed to meet the requirements and has been dismissed.

Application Procedures

New Degree Seeking Students

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

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

International applicants should refer to the [Information for International Students](#) chapter for more information regarding specific application instructions and requirements.

If applying to more than one program, you must submit a complete application and separate fee to each program.

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 a doctoral program.

An applicant for admission must present:

- Submitted online application
- 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.
- 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 (GRE School code 4875). Check with program coordinators in the departments for additional information that may be required.

Check with the program for the deadline for submitting the application.

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.

Nondegree Seeking 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:

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

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 for the master's degree, 9 hours for the EdD program, and 30 hours for PhD degrees. These limit totals include both nondegree CU credits and those transferred from other institutions.

Certificate Students

The application for students wishing to matriculate into a Graduate Certificate Program is completed online at <http://www.ucdenver.edu/academics/colleges/Graduate-School/prospective/Pages/apply.aspx>.

In addition to the online application, official transcripts from Colleges, Schools, and Universities in which the student received a degree are required. Individual Certificate Programs evaluate and select the students they want to admit. A letter of offer from the Certificate Program to the applicant must include a statement indicating that admission to the University is pending final approval of the Graduate School. The Graduate School confirms the applicant's credentials, including authenticating transcripts, and also determines whether the student meets general requirements of the Graduate School and the specific requirements of the selected Certificate Program. Students admitted to a Certificate Program must meet the same admission criteria as outlined above for degree-seeking students.

Students who are already enrolled in a Graduate Degree Program in which a Certificate is also offered may be admitted into the Certificate Program upon approval of the Program Director and the Graduate School.

Readmission of Former Students

Students who were previously admitted to a Graduate Program but who did not complete that degree program and who have not been registered for more than one (1) year [i.e., three (3) terms] at CU Denver|Anschutz must reapply to the Program supplying updated information and academic credentials. The following requirements must be satisfied before being readmitted:

- clarify their status with the Graduate Program and Graduate School to determine their eligibility to return and pursue the same degree;
- submit an application at least two weeks prior to the first day of the term in which you are interested in taking a course; and

- meet any new admission requirements required of matriculants (i.e., background checks, immunizations, etc.)

However, the Program is under no obligation to readmit the student, and the student should consult with the Program Director before applying.

Transferring Programs

Students who are currently enrolled in a Graduate Program and in good academic standing (i.e., GPA of 3.00 or better) and who want to change Programs or major departments must complete the appropriate application forms and be accepted by the new Program into which they are transferring. The Graduate School maintains a current form for such transfers at www.ucdenver.edu/graduateschool.

New Student Orientation

An orientation program for new students is held prior to the start of the fall semester. 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.

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.

Requirements for Graduate Degrees

Graduate Student Handbooks

The Graduate School provides a [Graduate School Handbook](#) that provides information and guidelines for graduate students at the University of Colorado Denver. Students are encouraged be familiar with the policies outlined in this handbook and to use this

handbook as a supplement to the personal feedback and guidance of faculty and staff in their departments.

Each graduate program is expected to provide students with a program-specific handbook 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

To maintain satisfactory academic progress, advance to candidacy, and earn a certificate or graduate degree, students are required to maintain a minimum cumulative GPA of 3.00 for all graduate courses taken while in Graduate School, including any undergraduate (i.e., 4000 level) courses that may be required for the certificate program or graduate degree. Failure to maintain a 3.00 cumulative GPA will result in the student being placed on academic probation, as defined below. Courses in which grades below "B-" (2.7) are received may not be applied toward fulfillment of the requirements for any graduate (PhD or Master's) degree or certificate. Courses required by the degree-granting program or certificate in which the student receives a grade below B- must be retaken in order to achieve a B- or better grade. However, all grades received, including repeat courses, will appear on the student's transcript and will be included in the GPA calculation, but only one course enrollment may be counted towards graduation credits.

Transfer Credits

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 for the master's degree, 9 hours for the EdD degree, 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 more than 7 years ago will need to be validated by the program director.

Certificate Program

The minimum number of credit hours required for a Graduate Certificate are nine (9), although twelve (12) credit hours are strongly recommended, which is more in line with national norms. While it is expected that most of the coursework will be at the graduate level (5000 or above), no more than 3 credits may be earned at the undergraduate level

(4000 level only), and which requires approval of the Certificate Program Director. All graduate level certificate courses (5000 or above) will be eligible for transfer into a subsequent Graduate Degree Program assuming they meet the minimum grade requirements of the Graduate Program (which may be more stringent than the Graduate School Rules), the classes are deemed appropriate for the specific Program of study, and are approved for transfer by the Graduate Program Director.

Admission to Candidacy

Students who have completed coursework required for a Graduate Certificate must apply for a Certificate of Completion. This form is available in the Graduate School and online and must be signed by the Certificate Program Director prior to submission to the Graduate School for final approval and filing. The form has to be submitted to the Graduate School no later than the posted graduation deadline during the semester in which a student plans to have their Certificate awarded. An approved form certifies that a i) student's coursework is satisfactory, ii) that the Certificate Program curriculum described on the form meets the requirements of the Graduate School as well as the particular Certificate, and iii) that the student is eligible for the Certificate. Students cannot receive their certificate if they have a cumulative GPA less than 3.00 in the certificate coursework.

Master's Degree

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

Students planning to graduate should obtain current deadlines from www.ucdenver.edu/graduateschool. It is the graduate student's responsibility to see that all requirements and deadlines are met (e.g., changing of *I* and *IP* grades, notification of final examinations, etc.).

Minimum Requirements

The minimum number of credit hours required for a Master's degree is thirty (30). While it is expected that most of this coursework will be at the Graduate level (5000 and above), some Graduate Programs may allow specific undergraduate courses (4000 level and above) that are outside the specific discipline of their program to count towards the graduate degree and must be approved by the Program Director. Regardless, at least 24 credit hours of those required for completion of the Master's program must be at the graduate level (5000 and above) and undergraduate credits (4000 level and above) cannot exceed 20% of total credit hours required. Furthermore, undergraduate courses within the same discipline as the Graduate Program cannot be credited towards a graduate degree. If the program has a thesis, research paper or internship option as the culminating requirement, the thesis/research paper must count for three to six (3-6) credits, unless specified otherwise by individual programs. Independent study coursework cannot

exceed 20 percent (6 credits) of the 30 credits of coursework 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. Once all required semester hours of thesis work have been taken and all other course work is completed, students may 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. Students may only enroll in this course once during their final semester. Students registered for the Candidate for Degree course will be considered full-time for financial aid and enrollment verification purposes.

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 Style and Policy Manual for Theses and Dissertations, available on the Graduate School webpage. 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.

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 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.

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 Graduate School at least two weeks 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.

A student who fails the examination is subject to immediate dismissal from the Program on the recommendation of the Graduate Program Director and concurrence of the Dean. At the program's discretion, a student who fails the examination may be allowed to retake the exam once. 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 Graduate School.

Time Limit

Master's students, whether enrolled full time or part time, have 7 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 seven-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.

Doctoral Degree

Students who receive a doctoral 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 Requirements

The minimum number of credit hours required for a PhD degree is thirty (30) credits of coursework, all of which must be at the Graduate level (5000 and above) and thirty (30) dissertation credits. For the EdD program, the minimum credit hours required is thirty-nine (39) credits of coursework and fifteen (15) credits of dissertation. The PsyD program requires a total of ninety-four (94) credit hours, including four (4) hours of Externship, eight (8) hours of Internship, and four (4) hours of a capstone project. Graduate level coursework taken for a Master's degree may be applied toward a doctoral degree with Program approval.

All courses that count towards the minimum requirements for a doctoral degree must be at the graduate level; including graded on the A-F system (not pass/fail) and offered within a Degree Program at the 5000 level or above. With the approval of the Program Director, students enrolled in Graduate Programs at CU Denver|Anschutz can undertake graduate level courses at other campuses within the University of Colorado system.

The minimum enrollment requirement at CU Denver|Anschutz for doctoral students is six (6) semesters of full-time scholarly work beyond the attainment of a bachelor's degree.

After completing all course work required by their doctoral program (a minimum of 30 hours), PhD students must register for 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. 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.

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.

Registration Requirements

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.

Leave of Absence

Students who need to leave a CU Denver|Anschutz Graduate Program for a period of time should determine in consultation with their Program Director whether a petition for leave of absence is required for up to one (1) year. If approved by the Program Director and the Dean of the Graduate School, a copy of the Leave of Absence form is forwarded to the Registrar’s Office. The original is retained in the student’s file. Approved leaves of absence do not automatically extend the time limits for earning a degree or certificate, but they may be cited as supporting documentation to request an extension if needed. Requests for leaves of absence that exceed one (1) 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 (1) 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.

Examinations

Each PhD program will require at least comprehensive and final examinations. Notice of all examinations must be filed with 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 once 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 exam may be retaken once 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/Dissertation Examination

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 Biosketch forms must be submitted to the Graduate School at least two weeks before the exam. 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 or 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. Although the student's dissertation advisor may not chair the Comprehensive or Dissertation Examination Committees, Programs are given the flexibility to permit, or prohibit, the student's advisor to serve as Chair of the Dissertation Advisory Committee. The Dissertation Advisory Committee will serve an advisory function to the student and dissertation advisor and will also monitor the student's progress towards completing the dissertation. The Dissertation Advisory Committee will determine when the student has made sufficient progress to begin writing his or her dissertation. All PhD students who have advanced to candidacy must meet with their Dissertation Advisory Committee at least once every year, although some Programs may require - and the Graduate School encourages - a greater frequency of meetings. It is the student's responsibility to identify the best available time and schedule the meeting. The Dissertation Advisory Committee shall evaluate the student's progress to ensure that s/he has made satisfactory progress since the previous meeting. The Committee Chair will complete the Dissertation Advisory Committee meeting form summarizing the student's progress, or lack thereof, and send copies to the student, the primary mentor if not the Chair, the Program Director and the Graduate Dean. In case of non-satisfactory performance, steps to be taken to rectify the situation should be suggested in the report. If a student fails to meet with their Dissertation Advisory Committee within the previous 12 months, the Graduate School will notify the student and dissertation advisor that the committee must meet within the next four (4) weeks. Students who fail to have a Dissertation Advisory Committee meeting by the end of this four (4) week probationary period 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 Style and Policy Manual for Theses and Dissertations, available on the Graduate School webpage. 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.

International Admissions

International Admissions

Director: George F. Kacenga

Telephone: +1-303-315-2384

Email: application@ucdenver.edu

Website: international.ucdenver.edu/admissions

The Office of International Admissions at the University of Colorado Denver assists all international students who are on or will require a non-immigrant visa with the international application process. Advisors are available to help you through the entire application process.

Application Requirements

- Completed online application, available at internationaladmissions.ucdenver.edu
- \$75 application fee
- Official post-secondary transcripts/mark-sheets
- Official GRE/GMAT Scores, per program requirements
- Letters of Recommendation, per program requirements
- Official TOEFL or IELTS score, or ESL Academy completion
- Check with your department of interest for any additional requirements

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.

Application Deadlines

The preferred deadlines help facilitate timely immigration processing.

<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

Please note: Final graduate application deadlines vary by department and by program. Please contact your academic department for final deadline information.

English Language Requirement

Applicants are required to submit a TOEFL (Test of English as a Foreign Language) or IELTS (International English Language Testing System) score to demonstrate English language proficiency. The TOEFL/IELTS requirement is waived if the applicant has graduated from the [ESL Academy](#). Information regarding other considerations for exemption, including country of citizenship/origin, and special circumstances can be

found [here](#). Please note that some graduate level programs will require a higher score on the TOEFL/IELTS and applicants should consult the department for additional details.

The CU Denver institutional code for TOEFL is 4875.

Minimum TOEFL Score Accepted: **75 IBT / 537 PBT**

Minimum IELTS Score Accepted: **6.5**

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

Housing

CU Denver provides various resources to help students find both on and off-campus housing. [The Office of Housing and Residential Education](#) serves as a resource for all student housing needs. The office supports students with housing, addresses issues related to housing, and provides students with various housing resources. They offer an online housing database: <http://ucdenverhousing.com>

For more information, please contact the Office of Housing and Residential Education at 303-556-2444 or 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 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 in International Student and Scholar Services prior to commencing on-campus employment.

Student Life

Office: Tivoli Student Union, Room 303

Telephone: 303-556-3399

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

The Office of Student Life's mission is to promote student growth through involvement and leadership. The Office of Student life coordinates campus events, runs student organizations, assists sports teams, provides information on student health insurance, connects students with volunteer opportunities, gathers additional resources for students, runs the Peer Advocate Leader (PAL) program, and rents the lockers in North Classroom. 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.

Health Insurance

Office: Tivoli Student Union, Room 127

Telephone: 303-556-6273

All F-1 and J-1 students enrolled at the university's 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 requirements. The Student Health 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 more information about the mandatory policy or information about the waiver process, please contact the [Student Health Insurance Office](#) at 303-556-6273 or email susanne.lederer-ghram@ucdenver.edu.

Expenses

The estimated tuition and living expenses for international students, which include room, board, books and insurance, can be found using these [estimated financial figures](#).

Tuition/Financial Aid

Click on any of the following links for information:

Financial Aid	Tuition and Fees
Find It Here	

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: Student Commons (AB1) 5123

Telephone: 303-315-1800

E-mail: bursar@ucdenver.edu

Website: www.ucdenver.edu/bursar/

Front Counter: Student Commons (AB1) 5123

Manager: Debra Dorsey

Telephone: 303-315-1820

Bursar's Office Phone Center

303-315-1800 **Fax** 303-315-1805

- Application fees payments by credit card
- College Opportunity Fund
- Departmental deposit transactions
- Payment of tuition and fees
- Refunds and Direct Deposits
- Student account reconciliation
- Third-party billing and payments

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 each spring 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/bursar in July for new rates.

Registration Advance Payment

All new or re-admitted University of Colorado Denver students taking classes on the Denver Campus are required to make a registration advance payment of \$200.00 before they may register for classes. The ONLY two exceptions to this requirement are when:

- The Financial Aid Office has received a student's FAFSA data.
- The student has not been admitted to an academic program at University of Colorado Denver and is only taking Extended Studies courses.

If a student withdraws from all of their classes before the first day of class, the \$200 registration advance payment will be refunded (after the census date). If a student withdraws from all of their classes on or after the first day of class, the \$200 registration advance payment will be forfeited to the University. If a student does not withdraw from all of their classes, the \$200 registration advance payment will be treated as a deposit toward the student's tuition and fees.

Drop Charge

Beginning the second Tuesday of the fall and spring terms until census date, a \$100 drop transaction charge will be assessed each time a student drops a course. Please refer to the academic calendar for summer dates. 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, dropping all classes, a drop charge will be assessed for each course.

Payment of Tuition and Fees

All tuition and fees, except the application fee, are due on the day indicated on your billing statement. Students have an option to choose a payment plan available through QuikPAY, our payment processor. Specific information on the payment plan can be located [here](#).

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. Students may pay tuition and fees with personal checks, by credit card at the Bursar's Office, or through the UCDAccess portal. Any payment transaction that is returned by the bank will be assessed an additional charge

The University of Colorado Denver is committed to providing students and their families a range of options for paying their educational expenses. The credit card payment method has become prohibitively expensive due to the fees charged by credit card companies to CU Denver for credit card transaction processing. This expense has been covered by University tuition revenues, and reduces the tuition dollars available for academic programs and services for all students. Therefore, a service fee of 2.75% of the payment amount will be assessed for all credit and debit card transactions.

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 Student Center à All Student Functions à 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](#) or in the Office of the Registrar. 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 Student Debt Management. If accounts are not paid in full, a 20% internal collection fee will be assessed on the unpaid balance, this is in addition to the 1.75% service charge per month all past due accounts are subject to. An overdue student account may be referred to a third party collection agency and reported to one or more credit bureau reporting services; the student explicitly authorizes CU Denver to release personal and financial information under those circumstances. To the extent permitted by applicable law, the student agrees to reimburse the University of Colorado Denver the fees of any collection agency, which may be based on a percentage at a maximum of 40% of the debt, and all costs and expenses, including reasonable attorney's fees, we incur in such collection efforts. In addition, while you maintain a past due balance with the University of Colorado Denver, a hold will be placed on your record preventing any future registration and the release of official transcripts.

Pursuant to C.R.S. § 23-5-115, in the event of a default on an amount owed to CU Denver, CU Denver may certify to the Colorado Department of Revenue information regarding persons with past due accounts. The Colorado Department of Revenue may then disburse funds to CU Denver in satisfaction of that debt from tax refund amounts owed to the individual, if any.

See the [Tuition and Fees Payment Disclosure Statement](#).

For more information, please see the [Bursar's Administrative Withdrawal Policy](#).

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 are not emancipated assume the domicile of their parent or court-appointed legal guardian. A non-emancipated 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.

Student Services Information

Click on any of the following for more information:

Campus Life	Student Services

CAMPUS LIFE

- [Auraria Campus](#)
- [Campus Amenities](#)
 - [Auraria Campus Bookstore](#)
 - [Auraria Campus Event Services](#)
 - [Early Learning/Child Care Center](#)
 - [Recreation Center](#)
 - [Auraria Library](#)
 - [Media Center/Classroom Support Services](#)
- Campus Amenities Continued
 - [Emmanuel Gallery](#)
 - [Health Center of Auraria](#)
 - [King Academic and Performing Arts Center](#)
 - [Tivoli Student Union](#)
- [Campus Safety](#)
- [Office of Commuter Services](#)
- [Student Right To Know and Disclosure Information](#)

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 University 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 of 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

Tivoli Station (formerly Auraria Campus Bookstore)

Location: Tivoli Student Union, Suites 105 and 205

Website: www.tivolystation.com

Phone Number: 303-556-4286

Facebook:

www.facebook.com/TivoliStation

We've got you covered at Tivoli Station, your best resource for **technology, CU Denver spirit gear, and cost-saving options for textbooks**. We offer both convenience and

value. Look to us for easy one-stop shopping and a variety of programs designed to benefit students.

Tech Station

As an **Apple Authorized Campus Store** and **Apple Authorized Service Provider**, we offer student discounts and in-store tech support. We also carry Dell computers, discounted HP technology, calculators, flash drives, headphones, and more.

Book Station

Thousands of textbook titles are available to rent (save up to 50%) or buy new or used. At the end of each semester, sell your used books for cash with the Textbook Buyback Program, a service we offer to help offset student expenses.

You can also visit ahec.verbacompare.com to compare textbook prices from the web, giving you options to find the best value available.

Lynx Station

Show your school spirit with **CU Denver clothing and gear**, such as shirts, hats, pants, lanyards, hoodies, mugs, and water bottles.

Supply Station

We offer a variety of course supplies, including general school supplies and art, culinary, and science lab materials.

Reading Station

In the general merchandise area we provide study aids, reference materials, gift items, and discounted New York Times Bestsellers.

Charging Station

Charge your device for free using one of our phone ports or outlets.

Snack Station

Grab a snack while you are waiting for your device to charge, or take it on the go. We have pre- wrapped sandwiches, drinks, yogurt, chips, and candy.

Campus Commitment

We are committed to the campus. Revenue from the bookstore helps fund campus programs and keeps your student bond fee down. We are also one of the largest student employers on campus.

Auraria Campus Event Services

Location: 900 Auraria Parkway, Suite 325

Phone Number: 303-556-2755

Email: acesmaindesk@ahec.edu

Website: www.ahec.edu/event-services

Auraria Campus Event Services (ACES) manages all non-academic events that take place on the Auraria Campus. From a simple meeting to an impactful campus event like Spring Fling or Fall Fest, our team is committed to providing quality service and producing successful events.

A majority of the event spaces on campus are located in the Tivoli Student Union, but other event venues are also available in St. Cajetan's Event Center, the PE/Event Center, and several outdoor event spaces. Student groups can contact us for assistance with locating and booking a space and coordinating support services.

Auraria Early Learning Center (Child Care Center)

Location: 950 9th Street Park

Phone Number: 303-556-3188

The Auraria Early Learning Center (AELC) provides high quality early childhood care and educational program to children 12 months and walking through 8 years old. The programs at AELC are utilized by the children of college students, as well as children of faculty and staff on campus, and community members. There are 300 children in 12 classrooms and the center is open year round (except for holidays) from 7 AM to 6 PM, Monday through Friday. The Center also offers a fully accredited kindergarten program and a summer camp program. AELC has earned a 4 Star - or high quality - Qualistar rating, as ranked by Qualistar Early Learning.

Auraria Event Center/Student Recreation Center

Location: PE Building/Event Center

Phone: 303-352-4371 (fitness center); **Website:** <http://www.msudenver.edu/campusrec>
303-556-3210 (recreation)

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 the Student Recreation Fee support Campus Recreation at Auraria (CRA). At CRA, our purpose is to foster individual and community well-being through the power of engagement, leadership, partnership and recreation. CRA provides a wide range of affordable, high quality, and inclusive recreational and wellness opportunities designed to support personal, academic, community and institutional success of Auraria Campus students, faculty, staff, alumni and the community at-large. CRA consists of Fitness and Wellness,

Outdoor Adventure and Leadership, Recreational Sports, Educations/Certification, Member Services, Employment Opportunities, Partnerships, and Community Outreach.

Auraria Library

Phone Number: 303-556-2740 **Website:** <http://library.auraria.edu/services/askus>

The Auraria Library connects users with ideas through technology-enabled information discovery and delivery on an “anytime, anyplace” basis. The Library’s collections of learning materials, resources, and research services support the information, research, and curriculum needs of the Auraria Campus. Whether you are looking for a quiet place to read and reflect, a place to share a cup of coffee while working with classmates on a group project, a source of authoritative academic information, or a computer-enabled collaborative study room, the Library will meet your needs. Assistance from Library staff is available via one-on-one meetings, by phone, text, or chat on our website (library.auraria.edu/services/researchhelp).

Auraria Media Center and Classroom Support

Location: 1100 Lawrence Street (East side of the Auraria Library), 015

Phone Number: 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

Location: 10th and Lawrence Street Pedestrian Mall

Phone Number: 303-556-8337

Tri-institutional campus on Auraria Campus for over 35 years. Historical landmark who received the Mayor's Art for Excellence in 2012 featuring national, international artists, designers and architects as well as featuring student and faculty shows for each school on campus. Stop in for a relaxing break.

Health Center at Auraria

Location: Plaza Building 150

Phone Number: 303-556-2525

Website: www.healthcenter1.com

All Downtown Campus students, faculty and staff have access to medical services at the Health Center at Auraria. Student health insurance is NOT required to use this facility.

The Health Center at Auraria is staffed by physicians, physician assistants, nurse practitioners, radiological technologists, and medical assistants. Specialist physicians in orthopedics, sports medicine, psychiatry and GYN are available.

A full array of medical services are provided, including

- Physicals
- Annual GYN exams/ birth control services
- Injuries and mental health needs
- Treatment of acute and chronic illness
- Laboratory testing
- Medications
- Sexually transmitted disease screening
- Minor surgery
- Immunizations
- Casting, suturing, and x-ray

Charges for services are kept below community standards. For any self-pay patient there is a 50% discount available when services are paid in full. Payment is required at the time of service, except for students who participate in the Student Health Insurance Program or for any student, faculty or staff who is insured by Blue Cross/Blue Shield, Aetna,

Humana, United and Cofinity Network in which case the Health Center will bill these insurance carriers directly.

Free services include HIV testing, tobacco cessation support and medication, blood pressure check, health education events, subscription to Student Health 101 and wellness activities including Yoga, Pilates and Zumba®.

Hours of operation are Monday through Thursday from 8:00 a.m. to 5:00 p.m. and Fridays from 8:00 a.m. to 3:00 p.m. Patients can call 303-556-2525 or walk-in to schedule an appointment.

King Academic and Performing Arts Center

Location: 855 Lawrence Way

Phone Number: 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 #325

Phone Number: 303-556-6330

Website: www.ahec.edu/tivoli

The Tivoli Student Union, managed by the Auraria Higher Education Center's Student Facilities Services department, provides a wide variety of amenities for the campus community. As the hub of the campus, the Tivoli Student Union houses the campus bookstore, called Tivoli Station, full-service restaurants and a food court, conference and meeting spaces, and facilities for recreational, social, and organized co-curricular student activities. The following services are located in the Tivoli Student Union:

- Tivoli Station (bookstore)
- Commuter Resource Center (ID Center)
- Sigi's Pool Hall
- Ricoh Copy Center
- Credit Union of Denver
- Public Service Credit Union
- i-lov-iT Market
- Free mobile charging stations (at Tivoli Station)

- Study lounges
- Restaurants, a coffee shop, and a food court

Club Hub

Location: 900 Auraria Parkway, Suite 346

Phone Number: 303-556-8094

Website: www.ahec.edu/club-hub

The Club Hub provides free workspace for over 60 student clubs, as well as group meeting spaces and lounge areas. We support clubs in pursuing their goals and objectives, and also provide the opportunity to interact with other organizations on campus. Clubs must receive official recognition from their institution for Club Hub privileges. Our services include computer workstations with Internet access and printers, fax machines, mailboxes, and office supplies.

ID Center (Commuter Resource Center)

Location: 900 Auraria Parkway, Suite 269

Phone Number: 303-556-8385

Website: www.ahec.edu/id-center

The Commuter Resource Center (ID Center) provides information about programs and services available to the campus community related to commuting to campus, student IDs, the RTD CollgePass, off-campus housing, getting around campus, and much more. Visit the ID Center to get your University of Colorado Denver student ID card and your RTD CollegePass smart card for unlimited rides on the RTD bus and light rail system.

Sigi's Pool Hall

Location: 900 Auraria Parkway, Suite 145

Phone Number: 303-556-3645

Website: www.ahec.edu/sigis

Sigi's Pool Hall is a rec room for students to relax and meet with friends between classes. In addition to a lounge area with big screen TVs, lunch tables, and use of a microwave, we have pool, ping-pong, poker, and a variety of Xbox or Wii video games. Join us for monthly tournaments for the chance to win prizes! Sigi's is also home to the MSU Denver Food Bank.

Campus Safety

Auraria Police Department

Location: 1201 5th Street Denver, CO 80217

Police Dispatch Number: 303-556-3271

Located in the Administration Building on the Auraria Campus

Campus Police Mission

The Auraria Campus Police Department is committed to enhancing the quality of life on the Auraria Campus by protecting life and property, and providing a wide range of services to prevent crime and resolve problems.

Services (*The Auraria Campus Police Department provides campus services 24 hours a day, 7 days a week.*)

- Crime prevention programs
- Informational services
- Police support to campus staff
- Night escorts to your vehicle
- Security patrols, bicycle patrols, foot patrols
- Vehicle unlocks
- Emergency response (Emergency Phone Map: <http://www.ahec.edu/campusmaps/index.htm>)
- Timely Notification Bulletin for the Auraria Campus
- Immediate notice of crimes affecting the Auraria Campus.

The Auraria Handivan Service is offered Monday through Thursday 7:00 am-10:00 pm and on Friday's from 7:00 am-6:00 pm. Also, take advantage of Auraria's Nightrider escort service. It will take you to any building or parking lot on campus Monday through Thursday, Sundown to 10:00pm. The wait time is usually no longer than 10 minutes. To arrange for the Nightrider, contact the Auraria Parking Office at (303) 556-2001. If the Nightrider is not running, contact the Auraria Campus Police Department at (303) 556-5000 to arrange for an escort to your car.

Emergency Notification System

The Emergency Notification System (ENS) tool provided by the University of Colorado Denver (CU Denver) for students, faculty and staff provides timely life-safety alerts. You are able to receive these alerts via text, voice and email messaging. Your CU Denver email address has already been added to this system. If you would receive emergency alerts on your cell phone, make sure that you enter your cell phone number into the PROFILE section of your student or employee portal at <https://my.cu.edu/>. If you have questions, please contact the CU Denver Emergency Manager, Essi Ellis, at Essi.Ellis@ucdenver.edu or by phone at 303-724-1031.

The Office of Commuter Services

Location: Tivoli Student Union, 227
Phone Number: 303-556-2444

E-mail: housing@ucdenver.edu
Fax: 303-352-3751

The Office of Commuter Services serves as a resource for on and off campus housing needs and commuting information. We function to support students with housing questions, address issues related to housing, and provide students with resources. 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 in campus housing.

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, 40 percent of the fall 2008 cohort graduated.

CU Denver’s one-year fall-to-fall retention rate is 75 percent for the fall 2012 cohort. That is, of the first-time, full-time, degree-seeking undergraduate students who entered the university in fall 2012, 75 percent were enrolled at the Denver Campus in fall 2013 end of term.

Voluntary System of Accountability (VSA) data indicate that the 2008 Denver Campus first-time, full-time, degree-seeking freshman cohort has an overall 4-year success rate of more than 80%, with 21% retained at another institution, 40% retained at CU Denver, nearly 15% graduated from CU Denver, and another 5.6% received degrees elsewhere.

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.
Registration & Records

Graduate School Rules	University Policies
Registration & Records	

Click on any of the following links for information:

- [Academic Calendar](#)
- [Registration](#)
 - [Definitions: Full-time vs. Part-time](#)
 - [Add/Drop Courses](#)
 - [Pass/Fail](#)
 - [Withdrawal from the University](#)
- [Academic Records](#)
 - [Grading System and Policies](#)
 - [Graduation](#)
 - [Notification of Rights, FERPA](#)

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. Please refer to the Academic Policies section for more specific information related to records and registration.

Office of the Registrar

Registrar: Ingrid Eschholz
Office: Student Commons Building, Suite 5005
Telephone: 303-315-2600

E-mail: registrar@ucdenver.edu
Web site: www.ucdenver.edu/registrar

Academic Calendar

Fall 2016

April 4	Registration Begins
August 22	First Day of Classes
September 5	Labor Day Holiday (campus closed, no classes)
September 12	Census
November 21 - 27	Fall Break (campus open, no classes)
November 24	Thanksgiving Holiday (campus closed, no classes)
December 12 - 17	Finals Week
December 17	Commencement

Spring 2017

November 7	Registration Begins
January 16	Martin Luther King Jr. Holiday (campus open, no classes)
January 17	First Day of Classes
February 1	Census
March 20 - 26	Spring Break (campus open, no classes)
May 8 - 13	Finals Week
May 13	Commencement

Maymester/Summer 2017

March 13	Registration Begins

May 29	Memorial Day Holiday (campus closed, no classes)
May 15 - June 1	Maymester
June 5	Summer Semester Begins
June 13	Census
July 4	Independence Day Holiday (campus closed, no classes)
July 29	End of Term

Current academic calendars are available on the Office of the Registrar's website.

*The university reserves the right to alter the academic calendar at any time. Consult the website at www.ucdenver.edu/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.

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.

Graduate degree and non 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 - 4.5 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/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

Outstanding Debt/Administrative Drop Policy

Students who owe a past due debt to the university in excess of \$300 will be administratively dropped from any future terms if past due amount is not paid in full before the Friday prior to the first day of classes of the next term.

Auditing Courses

To qualify as an auditor for fall, spring or summer semester, a student must be 21 years of age or older. If under 21 approval must be granted by the registrar. Auditors may not be registered for any other University of Colorado courses during the time they are auditing, they must be in good standings with the university not on suspension or have outstanding financial obligations.

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 from the Bursar's Office beginning the first day of classes through census date. 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' Program

Area residents who are sixty (60) years of age or older may attend classes at the University of Colorado Denver (DOWNTOWN CAMPUS) on a non-credit/non-tuition basis during the fall and spring semesters. Note: Each academic department/unit may have its own policy regarding your acceptance into a specific class. Seniors may take any course (offered at the Downtown Campus) listed in the online course schedule except: courses which require laboratory or special equipment use, computer courses, courses offered through the Division of Extended Studies, courses with additional fees, CU online courses, CU Denver South campus or Anschutz Medical campus courses, and intensive and/or module courses (i.e. maymester, 6 week, or hybrid). Acceptance in class will be determined by the instructor, based on space availability, and the previous level of education obtained by the senior citizen student. Participants may register for classes beginning the first day of class. The last day to register for a class via the SCP program is the second Friday after classes begin. Submissions after this day will not be reviewed. A limit of two (2) courses may be taken per semester. Note: The instructor is NOT required to review written or oral exams, or assignments.

For more information please visit <http://www.ucdenver.edu/admissions/non-degree/Documents/SCP%20Packet%202015%20and%202016%20Final.pdf>.

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.

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. 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.
3. Pass/fail registration records are maintained by the registrar's office.
4. 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.
5. 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.
6. 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.

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.

To Withdraw from CU Denver

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.

Medical Withdrawal

A student who wishes to withdraw under the Medical Withdrawal Policy must withdraw from all classes; partial withdrawals are not permitted. Additionally, international students must contact their assigned International Services Specialist to discuss visa implications associated with withdrawing. Students seeking to withdraw for non-medical reasons will need to review the withdrawal policies and procedures for their respective school or college.

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.

Academic Records

Grading System and Policies

The following grading system and policies have been standardized for all academic units of the university.

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>	<i>4</i>
<i>A(-) =</i>	<i>3.7</i>
<i>B(+) =</i>	<i>3.3</i>
<i>B = good/better than average</i>	<i>3</i>
<i>B(-) =</i>	<i>2.7</i>
<i>C(+) =</i>	<i>2.3</i>
<i>C = competent/average</i>	<i>2</i>
<i>C(-) =</i>	<i>1.7</i>
<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.

NC indicates registration on a no-credit basis.

W indicates withdrawal without credit.

Incomplete Grade

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 non-degree 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.

Sample GPA Calculation

Grade Earned: A; Credit Points per Hour: 4.0; x Credit Hours: 4.0 = Credit Points in Course: 16.0

Grade Earned: A-; Credit Points per Hour: 3.7; x Credit Hours: 4.0 = Credit Points in Course: 14.8

Grade Earned: B+; Credit Points per Hour: 3.3; x Credit Hours: 4.0 = Credit Points in Course: 13.2

Grade Earned: P; Credit Points per Hour: -; x Credit Hours: 3.0 = Credit Points in Course: - (excluded)

Grade Earned: F; Credit Points per Hour: 0; x Credit Hours: 3.0 = Credit Points in Course: 0

Total of 15 credit hours with 44 credit points, so $44/15 = 2.93$ GPA

Good Academic Standing

Degree Seeking Students

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 3.0 on all University of Colorado course work.

Non-degree Seeking Students

Continuation as a non-degree graduate student is contingent upon maintaining an overall GPA of 3.0.

Failure to maintain the required average will result in a non-degree 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.

Final Grades

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

SCHOOL/COLLEGE SPECIFIC POLICY

College of Liberal Arts and Sciences

The College of Liberal Arts and Sciences requires the following degree requirements for all graduate degree granting programs outlined below:

All graduate degree programs must follow the [Graduate School Rules](#).

The Master's degree

Minimum credits 30, at least 24 credits must be completed at 5000 level or above.

If the program has a thesis, research paper or internship option as the culminating requirement, the thesis/research paper must count for three to six (3-6) credits, unless specified otherwise by individual programs. Independent study course work cannot exceed 20 percent (6 credits) of the 30 credits of coursework required for the Master's degree.

The Doctoral degree

Minimum credits 60, 30 must be coursework related and 30 must be dissertation credits. All courses must be completed at 5000 level or higher. (All students should check the specific requirements of their Program, since some Programs have adjusted their credit hour requirement to meet national standards)

The certificate

Graduate certificates require a minimum of 9 credit hours (in any discipline).

No more than 3 credits may be earned at the undergraduate level.

Because a certificate is a CU certification of a student's specialized knowledge in an advanced subject matter, all courses in a certificate program are expected to be taken in residency at UC Denver.

Minimum GPA of 3.0 with no course below a B- for a graduate certificate

A single course may not fulfill more than two graduation requirements.

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.

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 with posted grades 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 (UCDAccess) or through the online ordering portal by visiting www.ucdenver.edu/transcripts.

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 in conjunction with the Transcript Request form or online through the Transcript Ordering 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.

FERPA

FERPA: FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT

FERPA is a federal privacy law that protects students' educational records. Under this law, students have three primary rights:

- Inspect and review their education records.
- Seek to amend incorrect education records.
- Have some control over the disclosure of information from their education record.

FERPA generally requires the University to obtain your consent prior to disclosing your education records or personally identifiable information contained in your records. One exception, which permits disclosure without your consent, is information about you that the University has designated as “directory information.” The following items are designated “directory information” and may be released at the discretion of the University of Colorado:

- Name, address, telephone number, and email address
- Dates of attendance
- Registration status (full-time, part-time)
- Class status (freshman, sophomore, junior, senior)
- Major
- Awards, honors, and degrees conferred
- Photos

Although the above items may be released by CU Denver, only a limited amount of this information is routinely disclosed by CU Denver officials. The University retains the discretion to refuse to disclose directory information if it believes such disclosure would be an infringement of your privacy rights.

If you would like to restrict the release of your information, you can submit a Request to Prevent Disclosure of Directory Information Form to the Office of the Registrar. This form must be submitted in person.

Information that is never released without your consent includes grades, tuition/fees owed, financial aid, etc. If you would like to give permission to someone else to have access to that information, you can submit a Release of Confidential Information Form to the Office of the Registrar. This form also must be submitted in person.

If you have questions regarding your rights under FERPA, please contact the Office of the Registrar.

Denver Campus:

Phone: 303-315-2600

Fax: 303-315-2550

Email: registrar@ucdenver.edu

Website: www.ucdenver.edu/registrar

Click on any of the following links for information:

- [Academic Honor Code and Discipline Policies](#)
- [Academic Probation and Suspension Policies](#)
- [Student Bill of Rights](#)
- [Student Code of Conduct](#)

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.

University Policies

Phone: 303-315-2724

Website: http://www.ucdenver.edu/faculty_staff/employees/policies/pages/default.aspx

The Office of Policy and Efficiency - with input from system and campus policy owners - develops, oversees and maintains the University's system wide policy-making process; facilitates the development, review, approval, and maintenance of University-wide policies.

Policies include:

- Inclusiveness and Non-Discrimination
- Anti-Violence Policy
- Sexual Harassment
- Drugs and Alcohol Policy

For further information on University Policies please contact an individual via the information above.

Academic Integrity and Discipline Policies

A university's reputation is built on a standing tradition of excellence and scholastic integrity. As members of the University of Colorado 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. Academic dishonesty is academic in nature, and students are encouraged to contact their academic advisor for details of how policies and procedures differ from one college to another.

Forms of Academic Dishonesty

Students are expected to know, understand and comply with the ethical standards 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.

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.

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 Submissions

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 university property, illegitimate possession of examination materials, forgery, falsification of university documents.

F. Complicity in Academic Dishonesty

Complicity involves knowingly contributing to another's acts of academic dishonesty.

School/College Specific Policy

Business School

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.

College of Engineering and Applied Science

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.

Academic Probation and Suspension Policies

Academic probation and suspension policies vary by school/college. If your program falls under the auspices of the Graduate School, please see the [Graduate School Rules](#). Otherwise, please contact your individual school/college for more information.

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 transferable.

Student Code of Conduct

The following section is based in part on Regent Law 7.B.3. The behaviors listed below are prohibited, as are attempts to commit, aid, abet, or incite others to engage in behavior prohibited by the code of student conduct. All behaviors contained in this code of conduct are subject to the conduct process. 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.

1. Assaulting or physically abusing another person or being involved in brawling.
 - In the case of a student who is found responsible via the conduct process to have caused severe injury or bodily harm, the minimum sanction shall be suspension. Severe injury and bodily harm includes but is not limited to the following: broken bones, concussions, lacerations, etc.
2. Threatening or endangering the mental and/or physical health or safety of a person.
3. Public Exposure: Public exposure includes deliberately and publicly exposing one's intimate body parts, public urination, defecation, and public sex acts.
4. Non-Gender/Sex Based Stalking: Means directly or indirectly through another person, repeatedly following, approaching, contacting, placing under surveillance or making any form of communication with another person, a member of that person's immediate family or someone with whom that person has or has had a continuing relationship, whether or not a conversation ensues in a manner that would cause a reasonable person to, (a) fear for his or her safety or the safety of others or; (b) suffer substantial emotional distress, including causing a person to respond by altering their activities.
5. 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)
6. Abusive Behavior, including verbal abuse, threats, intimidation, coercion, or other behavior which has caused a person substantial emotional distress and where the circumstances would cause a reasonable person to suffer substantial emotional distress
 - This policy should not be construed, and will not be enacted, to deny any student the right of free speech and expression.
7. Bullying: Severe aggressive behavior likely to intimidate or intentionally harm, control, or diminish another person, physically or mentally (that is not speech or behavior otherwise protected by the First Amendment)
 - Cyber-Bullying occurs when an individual is tormented, threatened, harassed, humiliated, embarrassed, or otherwise targeted by another person using the internet, interactive and digital technologies or mobile phones.
8. Violating any federal, state, or local law or university regulation or policy. University policies may include but are not limited to:
 - Nondiscrimination Procedures
 - Ethical Use of Computing Policy

9. Interference, Obstruction, or Disruption of University Activity: Materially and substantially interfering with, obstructing, or disrupting a university activity.
 - University activities include, but are not limited to, all normal university activities, such as teaching, research, recreation, meetings, public events, and disciplinary proceedings.
 - This prohibition includes, but is not limited to, the following: behavior disruptive of university functions; Behavior resulting in injury to persons or damage to property on the campus; and interference, obstruction, or disruption of the freedom of movement of students, or other members of the university community and their guests. Interference in any manner with the public or private rights of citizens, Behavior that threatens or endangers the health or safety of any person, and damage to property are prohibited.
10. Interfering with, obstructing, or disrupting police or fire responses. This prohibition includes, but is not limited to:
 - Resisting arrest.
 - Failing to abide by the directions of a peace officer.
 - Tampering with, impairing, disabling, or misusing fire protection systems such as smoke detectors, fire extinguishers, sprinklers, or alarms.
 - Failing to evacuate during a fire alarm.
 - Arson/setting fires.
11. Failing to comply with the direction of university and Campus Village employees who are performing their duties. Students are required to comply with instructions or directions given by university and Campus Village employees.
12. Knowingly providing false information to university employees, student conduct educators, or peace officers in performance of their duties. This section prohibits use of false identification or the identification of another person to gain entrance to a facility or business. This also includes forging, altering, falsifying or misusing documents or records, or knowingly using/possessing forged, altered or false documents or records.
13. Retaliating against or discouraging an individual from participating in a University process, or acting in any way that would improperly influence a university conduct process.
14. 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 by clicking [here](#).
15. Unauthorized entry into, exit from, or presence in a University facility or on university property, including Campus Village Apartments, or property belonging to another.
16. Damaging University property or property belonging to another.
17. Engaging in, inciting, or arming someone for a riot or public disturbance (see Appendix 4)
18. Use of an electronic or other device to make an audio and/or visual recording of another person (including, but not limited to photographing, videotaping, filming, or audio recording) without the person's expressed permission when such recording causes the person to suffer substantial emotional distress and would cause a reasonable person to suffer substantial emotional distress. The storing, sharing, and/or distribution of such records by any means is also prohibited.
19. Possessing firearms, explosives, fireworks, incendiary devices, ammunition, or other weapons on campus except as permitted by law. "Weapon" as used in this provision may be an instrument of offensive or defensive combat; anything used, or designed to

be used, in destroying, defeating, or injuring a person; an instrumentality designed or likely to produce bodily harm. A weapon may include, but not be limited to, the following: any firearm, slingshot, cross-knuckles, knuckles of lead, brass or other metal, any bowie knife, dirk, dagger or similar knife, or any knife having the appearance of a pocket knife, the blade of which can be opened by a flick of a button, pressure on the handle or other mechanical contrivance. A harmless instrument designed to look like a firearm, explosive, or dangerous weapon which is used by or is in the possession of a person with the intent to cause fear in or assault to another person is expressly included within the meaning of weapon. See Regents Policy 14.

Note: Students, faculty, and staff possessing valid Concealed Handgun Permits are allowed to carry concealed handguns on campus in accordance with the law.

20. Theft, including but not limited to, possessing property known to be stolen, or taking property of another without permission, even with an intent to return the property.
21. Possessing, using, providing, manufacturing, distributing, or selling drugs or drug paraphernalia in violation of law or University policies. Use or possession of marijuana, including medical marijuana used or possessed under Colorado Constitution Article 18, section 14, is strictly prohibited on campus. Any such use or possession is a violation of the student conduct code.

In addition, the state constitutional amendment authorizing individuals over the age of 21 to recreationally use marijuana ("Amendment 64") does not change this prohibition or authorize a student to use marijuana. Federal law, including the Drug Free Schools Act, prohibits the presence or use of drugs, including marijuana. Thus marijuana use or possession, even if in compliance with Amendment 64, is prohibited on campus.

- Students may violate the student code of conduct if in the presence of prohibited behavior involving drugs. This includes students who knew, or reasonably should have known they were in the presence of drugs, or possessed, displayed, or was in the presence of drug paraphernalia.
 - Misuse of legal substances; use of general products as intoxicants or "means to get high"; and inhaling or ingesting a substance (including but not limited to nitrous oxide, glue, paint, gasoline, solvent, etc.) other than in connection with its intended purpose is also prohibited.
 - Driving while under the influence of drugs
 - Use of a prescription drug other than by the person to whom the drug is prescribed and in accordance with the prescription is prohibited. This includes sharing drugs such as Ritalin or Adderall.
 - Attending classes or university functions under the influence of drugs shall also be considered a violation of this code. This includes disruptive Behavior while under the influence of alcohol at official university functions.
22. Possessing, using, providing, manufacturing, distributing, or selling alcoholic beverages in violation of law or university policies.
 - If an under aged 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.
 - Attending classes or university functions under the influence of alcohol shall also be considered a violation of this code. This includes disruptive behavior

while under the influence of alcohol at official university functions where alcohol is served.

- Driving while under the influence of alcohol.

The health and safety of members of the University of Colorado Denver is 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, and Intimate Partner violence related incidents. For more information about this provision please see Appendix 2.

The complete Code of Conduct, including a detailed explanation of the conduct process and sanctions can be found online at: <http://www.ucdenver.edu/life/services/standards/Documents/CUDenver-CodeofConduct.pdf>

You can also visit the Office of Community Standards and Wellness in the Tivoli Student Union Room 227.

Graduate School Rules

Please click [here](#) for the Graduate School Rules.

Listed below are all the schools/colleges and programs that are governed by the Graduate School Rules:

College of Architecture and Planning

- Design and Planning PhD
- Historic Preservation MS
- Urban Design MUD

College of Arts & Media

- Recording Arts MS

Business School

- Computer Science and Information Systems PhD

School of Education and Human Development

- Education and Human Development PhD
- Leadership for Education Equality EdD
- Urban Design MUD

College of Engineering and Applied Science

- Bioengineering MS
- Bioengineering PhD
- Civil Engineering MS
- Civil Engineering MENG
- Civil Engineering PhD
- Computer Science & Information Systems PhD
- Computer Science MS
- Electrical Engineering MS
- Electrical Engineering MENG
- Engineering and Applied Science PhD
 - Offered in civil engineering, computer science & engineering, electrical engineering and mechanical engineering
- Mechanical Engineering MS
- Mechanical Engineering MENG

College of Liberal Arts & Sciences:

- Anthropology MA
- Applied Geography & Geospatial Science MA
- Applied Mathematics MS
- Applied Mathematic PhD
- Biology MS
- Chemistry MS
- Clinical Health Psychology PhD
- Communication MA
- Economics MA
- English MA
- Environmental Sciences MS
- Health and Behavioral Science PhD
- History MA
- Humanities MH
- Integrated Sciences MIS
- Political Science MA
- Social Sciences MSS
- Sociology MA
- Spanish MA

School of Public Affairs

- Criminal Justice MCJ
- Public Affairs PhD

College of Architecture and Planning

Please click on the following to go right to that information:

[Graduate Programs](#)

[Departments and Programs](#)

[Computing in the College](#)

[Complete course list for the College of Architecture and Planning](#)

Dean

Mark Gelernter

Associate Dean of Academic Affairs

Michael Jenson

CONTACT

303-315-1000

Fax: 303-315-1050

CAP@ucdenver.edu

Mailing Address

Campus Box 126

P.O. Box 173364

Denver, CO 80217-3364

Location

CU Denver Building

1250 14th Street, Suite 2000

Denver, CO 80202

[Overview](#)

The College of Architecture and Planning is the only college in Colorado offering a full range of degrees in the design and planning of the built environment, from undergraduate through accredited professional masters to doctorate. The college offers a Bachelor of Science in Architecture degree and graduate programs for about 600 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. We take full advantage of our status, aligning our programs with our special opportunities in Denver, and with our view of what students in our fields will need to flourish in the next few decades.

[College Facilities](#)

The college is located at 1250 14th Street in downtown Denver, on the northeastern edge of the Auraria Campus and across from Larimer Square. 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. Students have access to our well-equipped and well-maintained 3000-square-foot Design Fabrication Lab that houses a full scale furniture-making shop, model-making tools, a large spray booth and four laser cutters. The Visual Resource Center (VRC) is a student and faculty services center that provides access to a variety of photographic and audiovisual equipment, two portfolio photography studio rooms, and digital image collections. There is 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 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 systems (GIS) computer laboratory, which is open to all CU Denver students.

Computing in the College

The College of Architecture and Planning requires all incoming students to acquire and use their own computers and software applications in their studies. Please note that neither the College nor the University endorses or requires you to buy a computer from a particular vendor or manufacturer. In general, students widely use products like Microsoft Office for word processing, e-mail, presentations and spreadsheet applications. Consult with instructors or view course syllabi regarding specific software application (program) requirements for imaging, CAD, GIS, modeling or rendering before you buy them. Software requirements for incoming students in all master's programs are per department recommendation, and otherwise stipulated by course syllabus. For further information, consult the college website.

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 can earn a certificate from the Institute of Classical Architecture and Art, by taking focused courses in this area. There are 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

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 international urban design studio held each summer in China's Shanghai-Nanjing corridor or in Copenhagen, Denmark's rich urban setting; and collaborative design studios with Dar Al-Hekma University in Saudi Arabia. Recent study abroad courses have been in Italy, Guatemala, Thailand, Finland, Denmark, and 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. For information on federal and state financial aid, contact the Office of Financial Aid at the University of Colorado Denver or visit its website.

Admissions for Graduate Programs

Application Deadlines

For Fall Semester:

- Master of Architecture Program (MArch): Online application due December 15, Portfolio due January 15
- Master of Landscape Architecture Program (MLA): February 1
- Master of Urban and Regional Planning Program (MURP): January 15
- Master of Science in Historic Preservation Program (MSHP): Priority Deadline March 15
- Master of Urban Design Program (MUD): Priority Deadline February 15, Final 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, application procedures and required materials.

Applicants to the College of Architecture and Planning graduate programs are required to submit the following credentials:

- University of Colorado Denver online application
- Official transcripts from each institution the applicant has attended excluding study abroad institutions where the courses are included on the home institution transcripts.
- A statement of purpose that addresses career objectives and reasons for pursuing the intended program of study.
- A portfolio of creative work - required for Architecture, Landscape Architecture and Urban Design. Suggested for Historic Preservation for students with prior design experience.
- A sample of writing or a work project - required for Urban and Regional Planning
- Three letters of recommendation
- Graduate Record Exam (GRE) scores are encouraged for the Urban and Regional Planning program
 - However, if you are applying to the Urban and Regional Planning program and your GPA is below 3.0, you must submit GRE scores
- Graduate Record Exam (GRE) scores are highly advised if your GPA is below 3.0 and you are applying for the Architecture, Landscape Architecture, Historic Preservation or Urban Design programs
- GRE scores are required for applicants to the PhD program.
- You must hold at least a bachelor's degree for admission to all professional master's programs. For admission to the Master of Urban Design program, a prior professional degree - normally the master's - is required in addition to a bachelor's degree.
- Application fee. Nonrefundable (\$50, U.S. residents; \$75, International applicants).
- English language proficiency scores are required for international applicants when English is not their first language. Please see International Admissions website for current minimum score requirements.

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 before the first semester that 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

Students must submit their own work. Where other sources are used in a student submission, they are to be clearly identified and referenced. The university considers plagiarism and similar acts of falsification to be a serious matter that may result in suspension or expulsion. Information on codes of conduct and grievance procedures are available from the university's Office of Community Standards and Wellness.

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.

College of Architecture and Planning Courses

Click [here](#) to see a complete list of courses.

Departments and Programs

Programs

Certificate

- [Design Build Graduate Certificate](#)
- [Geospatial Information Science Graduate Certificate](#)
- [Integrated Construction, Management + Leadership Graduate Certificate](#)

Doctor of Philosophy

- [Design and Planning PhD](#)

Master of Science

- [Historic Preservation MS](#)

Master of Urban Design

- [Urban Design MUD](#)

Architecture

[Go to information for Architecture.](#)

Programs

Master of Architecture

- [Architecture MArch](#)

Landscape Architecture

[Go to information for Landscape Architecture.](#)

Programs

Master of Landscape Architecture

- [Landscape Architecture MLA](#)

Urban and Regional Planning

[Go to information for Urban and Regional Planning.](#)

Programs

Master of Urban and Regional Planning

- [Urban and Regional Planning MURP](#)

Arts & Media

College of Arts & Media (CAM)

Click on any of the following links to go right to that information:

- [About CAM](#)
- [Academic Policies](#)
- [Programs of Study](#)
- [Scholarships](#) (website)
- [Facilities](#)

Dean: Laurence D. Kaptain, DMA and FRSA

Associate Dean, Academic and Student Affairs: Joann Brennan, MFA

Assistant Dean, Finance and Administration: Erin Hutchinson, MPA

Assistant Dean, Outreach and Engagement: Tanida Ruampant, MS

Contact

Dean's Office / Advising and Student Services

Arts Building, Suite 177

1150 10th Street

303.556.2279 (option 1)
Fax: 303.556.2335
CAM@ucdenver.edu

Mailing Address:

College of Arts & Media
Campus Box 162
P.O. Box 173364
Denver, CO 80217-3364

About the College of Arts & Media (CAM)

Mission

Our mission is to effect change by preparing students to successfully pursue their passions.

Our students acquire the skills they need to excel in an academically rigorous, experiential learning environment energized by creative exchange, real-world experience and diversity of voice.

Core Values

Creative Excellence - Academic and artistic rigor, creativity and innovation are bedrock principles of the CAM community and the cornerstone of how we define excellence. As champions of creative excellence in art making and artistic expression we support risk-taking, intellectual freedom and social responsibility.

Discovery - We believe in a culture of shared discovery. Our students learn by doing, and as emerging peers, are important contributors to the knowledge exchange. We value rigorous investigation, critical thinking, diversity, collaboration and invention.

Denver - We are committed to learning both inside and outside the classroom. The accessibility, diversity and cultural energy of Denver make CAM a better place to teach, work and learn. We strive to offer reciprocal experiences to the citizens of this great city and pay it forward by extending our reach and impact in the global community.

Programs of Study

Music & Entertainment Industry Studies

- [Master of Science in Recording Arts](#)
- [Master of Science in Recording Arts with Emphasis in Media Forensics](#)

CAM also offers a wide range of undergraduate degree options. Please see the **Undergraduate Catalog** or contact CAM@ucdenver.edu for more information.

Facilities

[Recording Arts Facilities](#)

- Five recording studios
 - Three studios include Surround Sound capabilities
 - All studios are ProTools HD equipped
- Large inventory of microphones and outboard equipment available
- Vintage keys collection, including DX-7, ARP Odyssey, ARP 2600, MiniMoog, PolyMoog, D-10, YC-30, B3 and Rhodes
- MIDI lab featuring ProTools, Logic and Ableton; supplemental access to three College of Arts & Media computer labs
- Consoles, including SSL AWS 924, Yamaha DM2000, AVID S6 and Mackie 32x8 Bus, as well as an Avid Artist Control surface
- Workstations, including 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

[National Center for Media Forensics Facilities](#)

- Computer lab featuring multimedia analysis and processing software such as Cognitech, Ocean Systems, DAC, Agnitio, iZotope Rx Advanced, Adobe Creative Cloud and MATLAB
- Security DVR and Camera Lab
- Digital Evidence Lab featuring EnCase, Cellebrite and CEDAR Cambridge hardware/software systems
- Graduate student workstations accessible from anywhere in the world via Remote Desktop Connection
- Network on ENF (Electric Network Frequency) databases around the US

CAM General Academic Policies

Please see the [Academic Policies](#) and the [Information for Graduate Students](#) pages of this catalog for academic policies that apply to all students at the university. The policies that follow apply specifically to all graduate students in the College of Arts & Media. Contact CAMadvising@ucdenver.edu with any questions about these or other college/university policies.

Students must also follow the policies outlined in the Graduate School Rules. Visit the [Academic Policies](#) page in this catalog and click on the link to access these rules.

[Adding/Dropping Courses After Census](#)

Students wishing to add or drop a full-term course after the semester add/drop deadline (census) must submit a petition to the College of Arts & Media. Contact CAMadvising@ucdenver.edu for petition guidelines.

Grade Appeals

When a student enrolled in a CAM course has questions or concerns regarding academic issues such as project grades, final grades, attendance policies, etc., the student must first speak directly with the faculty member teaching the course. If resolution or clarity of understanding is not reached, the following procedure should be followed:

- The student contacts the department chair to discuss the concerns.
- The department chair speaks with the faculty member.
- The department chair facilitates a meeting between the student and faculty member.
- If the student still has concerns, the student should submit a petition to the CAM Academic Policies, Procedures and Curriculum Committee.

Incompletes

The College of Arts & Media has strict policies for granting incomplete grades. They include but are not limited to the following:

- Reason for incomplete must be a verifiable circumstance beyond the 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 an incomplete (B (3.0) for courses toward recording arts; B- (2.7) for courses toward media forensics).
- 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, unless an earlier deadline is specified by the instructor or associate dean.
- 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

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. 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 graduate degree must be approved by the designated area head in the specific program area, the department chair and/or possibly the associate dean. Please contact CAMadvising@ucdenver.edu for additional information.

[Applying to Graduate](#)

Students expecting to graduate are required to apply to graduate via UCDAccess by the published deadline. Students who do not apply by the deadline must apply to graduate for the following semester.

Applications will be accepted starting the first day of the student's registration for the semester in which the student plans to graduate. Applications are due by 5 p.m. on census date (the drop/add deadline) of the semester in which the student is applying to graduate, as noted on the published academic calendar. Students are encouraged to meet with a faculty 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 (three consecutive semesters, including summer term) or longer 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, Procedures and Curriculum Committee](#)

The CAM Academic Policies, Procedures and Curriculum 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 CAM Advising and Student Services. Procedures and petition guidelines are available at the CAM website or by emailing CAMadvising@ucdenver.edu.

[Departments and Programs](#)

Music & Entertainment Industry Studies

[Go to information for Music & Entertainment Industry Studies.](#)

[Programs](#)

Master of Science

- [Media Forensics Emphasis, Recording Arts MS](#)
- [Recording Arts, Master of Science \(MSRA\)](#)

Theatre, Film & Video Production

[Go to information for Theatre, Film & Video Production.](#)

Visual Arts

[Go to information for Visual Arts.](#)

Music & Entertainment Industry Studies

←Return to: [Arts & Media](#)

Contact Information

Chair: Sam McGuire
Office: Arts Building, Suite 288
Telephone: 303.556.3480
Fax: 303.556.6612

Faculty

Associate Professors:

David Bondelevitch, MFA, University of Southern California
Leslie Gaston, MS, University of Colorado Denver
Sam McGuire, MS, University of Colorado Denver

Assistant Professors:

Lorne Bregitzer, MS, University of Colorado Denver
Catalin Grigoras, PhD, University Politehnica Bucharest

Contact the Department of Music & Entertainment Industry Studies for information about additional graduate program faculty.

Graduate Programs

Music & Entertainment Industry Studies offers two master of science programs:

[Master of Science in Recording Arts](#)

[Master of Science in Recording Arts, Media Forensics Emphasis](#)

Please see the **Undergraduate Catalog** or contact CAM@ucdenver.edu for information about the Bachelor of Science (BS) in Music with emphases in performance, singer/songwriter, music business and recording arts.

Business

Business School

Please click on any of the following to go right to that information:

- [General Academic Policies](#)
- [Academic Programs](#)
- [Graduate Business Programs \(MBA/MS/PhD\)](#)
- [Master of Business Administration Programs](#)
- [Master of Science Programs](#)
- [Dual Degree Programs](#)
- [PhD CSIS Programs](#)
- [Executive Programs](#)
- [Programs](#)
- [Courses](#)

Dean: Gary Kochenberger

Associate Dean of Programs: Dawn Gregg

Associate Dean of Faculty: Clifford E. Young

Assistant Dean Programs: Linda Brooker

Assistant Dean Budget: Connie Amen

Contacts

Dean's Office

Business School Building
1475 Lawrence Street
Denver, CO 80202
303-315-8000
Fax: 303-315-8040

Mailing Address

The Business School
Campus Box 165
P.O. Box 173364
Denver, CO 80217-3364

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

Admissions/Advising

Undergraduate: 303-315-8110
Graduate: 303-315-8110

Application Deadlines

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 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 303-315-1850 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.

Over 30 different scholarships are available to eligible Business School students, with multiple awards from most scholarships.

Further information about these scholarships, including eligibility criteria and application forms, may be obtained by visiting the [Scholarship Resource Office](#) website, by calling 303-252-3608, or by viewing scholarship information on the [Business School website](#).

Study Abroad

Transfer credit from study abroad programs requires prior written approval from the Assistant Dean. 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.

General Academic Policies

Academic policies that apply to all students at CU Denver are described in the Office of the Registrar website and in the [Academic Policies](#) and [University Policies](#) sections 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 and Dean's signature is required to add a business course after census date.

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 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 their grade. See the [academic calendar](#) for deadlines and costs involved.

Withdrawal

See the [Office of the Registrar](#) chapter of the catalog and 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. While we do our best to administratively drop students prior to the census date to avoid tuition charges, time may not always allow for that timeline and tuition charges may apply.

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 (303-315-8200 for graduate students and 303-315-8100 for undergraduate students) for appeal and petition procedures pertaining to rules and regulations of the school.

Grade Appeal Procedure

Students must follow the process below. .

- If the issue is not resolved after a conversation with the faculty member, discuss concerns with the Department Chair.
- If the issue is not resolved after a conversation with the Department Chair, discuss concerns with the Associate Dean.

Neither 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 to the syllabus. 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 an *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*. If an *I* is assigned, students do not register for the course a second time. Instead they work with the faculty member to make up the remaining requirements. 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*.

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.

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 and risk management/economics and the MBA in combination with graduate programs in architecture, bioengineering, 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.

[Graduate Business Programs \(MBA/MS/PhD\)](#)

Associate Dean: Dawn Gregg

Assistant Dean: Linda Brooker

Telephone: 303-315-8110

Fax: 303-315-8199

E-mail: bschool.admissions@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). In addition, 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 303-315-8110 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 submit a GRE score 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 business analytics 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 on admissions requirements, phone the graduate programs office 303-315-8110 or email them at: bschool.admissions@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 business courses, depending on the individual's academic background. For more detailed information on which background courses may be needed refer to the individual program information in this catalog or on our website, or phone the graduate programs office to schedule an appointment with a graduate academic advisor, 303-315-8110 or email the advisors 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.

- Résumé
- 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; however, those students may not meet scholarship deadlines and in some cases, course availability is limited for the later applicants.

International Application Requirements

See [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 business courses or prerequisites might be waived for the MS degrees. Call 303-315-8110 to schedule an appointment or email them at grad.advising@ucdenver.edu.

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, an 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 303.315.8110 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, 5 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. Contact grad.advising@ucdenver.edu for details.

Transfer of Credit

Upon approval of the program specific 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 for a dual MBA/MS degree program). Note: for the MS in business analytics 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 hour.

Transfer to Another Business School Program

Because admission standards *vary* between degree programs, students who wish to transfer from one CU Denver 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 because the admissions standards vary between programs.

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 to determine which courses may meet the time limits listed above.

Former Students

Any Denver campus graduate 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 Registrar's website (www.ucdenver.edu/registrar) when they register for their last semester. Contact the graduate advising office with questions 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 cumulative GPA. Transfer hours and grades from other institutions and/or from University of Colorado courses taken on 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). If a student requests to drop a course after the 10th week, solely due to a failing grade, the request will be denied.

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. (See the college website for the 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, with limited online offerings in the summer semester. 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, business analytics, finance and risk management, global energy management, health administration, information systems, international business, management, marketing, and taxation.

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 different components-common body of knowledge (CBK), 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 and some MS degree programs have eliminated CBK requirements. Some CBK requirements may be waived if evidence of equivalent undergraduate or graduate-level coursework is shown and the course work has been completed within the past 10 years. 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 elective courses require at least 30 semester hours of graduate-level coursework. BUSN courses lower than 6800 may not be used as free electives in the MS programs. Contact a graduate staff advisor for any exceptions at grad.advising@ucdenver.edu.

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/MGM](#)
- [MBA/MD](#)
- [MBA/MS in Bioengineering](#)
- [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: Roger Japp
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 Jake Jobs Center for Entrepreneurship offers programs for those looking to start a new venture or enhance their entrepreneurial skills. See the college website for more information.

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. See the college website for more information.

Course List for the Business School

Click [here](#) for a list of courses offered by the Business School.

Program Curricula

1. Discuss concerns with the faculty member

Programs

Certificate

- [Bioinnovation and Entrepreneurship Certificate](#)
- [Commodities Certificate](#)
- [Entrepreneurship Certificate](#)
- [Post-Graduate Certificates](#)
- [Risk Management and Insurance Certificate](#)
- [Sustainability Certificate](#)

Doctor of Philosophy

- [Computer Science and Information Systems PhD \(Business School\)](#)

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](#)
- [MBA/MS in Bioengineering](#)

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](#)
- [Business Analytics 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](#)
- [Taxation MS](#)

Master of Science/Master of Arts

- [Finance/Economics MS/MA](#)

Master of Science/Master of Science

- [Business/Business MS/MS](#)

School of Education & Human Development

Click on the following links to go right to that information:

- [Overview](#)
- [Admissions](#)
- [Degree Programs, Concentrations, Licenses, Endorsements, and Certificates](#)
- [Course List](#)
- [Centers and Partnerships](#)

- [Program List](#)

Dean

Rebecca Kantor, Professor and Dean

Associate Deans

Dorothy Garrison-Wade, Faculty Affairs

Barbara Seidl, Academic Programs and Undergraduate Experiences

Assistant Deans

Aswad Allen, Diversity & Inclusion

Christine Feagins, Budget and Finance

Brad Hinson, Information & Academic Technology

[Contact](#)**Admissions**

Office of Admissions & Outreach

1380 Lawrence Street Center, Suite 701

303-315-6300 voice

303-315-6311 fax

Email: education@ucdenver.edu

Website: www.ucdenver.edu/education

Mailing Address

School of Education & Human Development

P.O. Box 173364, Campus Box 106

Denver, CO 80217-3364

[Application Deadlines](#)

Application deadlines vary by program.

Visit <http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Apply/Pages/ApplyNow.aspx>

[Overview](#)

The School of Education & Human Development is a vibrant community of practicing educators and counselors, educational leaders and researchers who have a strong service ethic locally, nationally and globally and a dedication to excellence.

[Mission](#)**Leadership for Educational Equity**

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.

Vision

A leading school of education providing national expertise on educational issues and socially-just solutions for urban and diverse communities. Through innovative research and partnerships, we strive to be passionate agents of change, inspiring upcoming generations to learn from the past and shape the future.

Our Role in the Community

We are committed to developing forward-thinking educators and counselors who have a deep sense of inquiry, a concern for pressing social problems, a great desire to live their lives purposefully, a passion for giving back to the community and the cultural competence needed to serve urban and diverse populations.

Diversity and Inclusion

At the School of Education & Human Development (SEHD), we believe strongly that all students-diverse in race, ethnicity, economic resources, language, fluency, abilities, geography, first-generation status, age, gender and sexual identities-deserve the opportunity to learn. To advance our mission and meet the changing interests of our local and global communities, the Office of Diversity and Inclusion has been established to create positive momentum towards educational access, equity, and success.

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, Licenses and Endorsements

The School of Education & Human Development offers three doctoral programs, one educational specialist degree, master's degrees in seven program areas as well as undergraduate degrees with teacher licensure through a partnership with the College of Liberal Arts and Sciences. We offer a variety of endorsements and certificate programs as well. Students 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, concentrations, licenses, endorsements, and certificates are listed in the following tables.

School of Education and Human Development Degree Programs and Associated State Licenses

Programs	Degrees	Content Areas	Lincenses and Endorsements	Certificates
Administrative Leadership and Policy Studies	Master of Arts: Administrative Leadership and Policy Studies Educational Specialist (EdS): Administrative Leadership and Policy Studies	MA: Early Childhood Education (Buell Program) Higher Education Student Affairs Urban Schools	Principal License K-12 Administrator License K-12	Executive Leadership
Counseling	Master of Arts: Counseling	Couple and Family Counseling Clinical Mental Health, General Clinical Mental Health, Multicultural Emphasis School Counseling Higher Education Student Affairs	School Counselor: Birth to 21 Couples and Family Therapy - eligible to apply for License in Marriage and Family Therapy (LMFT) All tracks, except for Higher Education, are eligible to apply for the Licensed Professional Counselor	School Counseling

			(LPC) after National Certified Counselors (NCC) credentialing exam and completion of 2,000 hours of post-graduate supervised counseling.	
Curriculum and Instruction	Master of Arts: Curriculum and Instruction	Elementary Culturally and Linguistically Diverse Education Secondary Culturally and Linguistically Diverse Education Elementary Math Elementary Science Elementary Math and Science Elementary Reading and Writing Secondary English Education	Culturally and Linguistically Diverse Education Endorsement Reading Teacher Endorsement Special Education Generalist Endorsement	Health Education Place Based Education Classroom Assessment

		Secondary Math Education Secondary Science Education Secondary Reading and Writing Integrated Studies Special Education Pedagogy for Urban Leadership		
Doctoral Studies	Doctor of Education (EdD): Leadership for Educational Equity	Challenges to Opportunities to Achieve in Latino/a School Communities Executive Leadership Early Childhood Special Education/Early Childhood Education Mathematics Education Professional Learning and Technology Science Education	Principal License Administrator License	

		Urban Ecologies		
	Doctor of Psychology (PsyD): School Psychology	School Psychology Bilingual School Psychologist	School Psychologist	
	Doctor of Philosophy (PhD): Education and Human Development	Early Childhood Special Ed/Early Childhood Education Mathematics Education Science Education Urban Ecologies Administrative Leadership and Policy Research, Assessment and Evaluation Family Science and Human Development		
Early Childhood Education	Master of Arts: Early Childhood Education	Early Childhood Education Early Childhood Special Education	Early Childhood Special Education Specialist, Birth-8, License and Added Endorsement ASPIRE Early Childhood Education	Infant Toddler Autism ECE Coaching Buell Early Childhood Leadership Program

			Alternative License	
Education and Human Development	Master of Arts: Education and Human Development	Assessment Early Childhood Education Early Childhood Special Education Early Literacy Human Development Human Learning Human Development and Family Relations Human Learning & Development Research and Evaluation Special Education Teaching in Diverse Contexts (Initial Licensure)	Initial teacher licensure via Teaching in Diverse Contexts Concentration	
Information & Learning Technologies	Master of Arts: Information Learning Technologies	Adult Learning & Instructional Design E-Learning Design and Implementation	School Librarian Endorsement Instructional Technologist/Teacher Level	

		K-12 Instructional Technology Teacher and Instructional Technology Specialist School and Teacher Librarian	(for beginning teachers) Instructional Technologist/ Specialist Level (for educational technology teachers)	
Mathematics and Science Education	Master of Arts: Curriculum and Instruction	Elementary Mathematics or Science Education Elementary Mathematics and Science Education Secondary Mathematics or Science Education		Mathematical Content Knowledge for Teaching
	Master of Science in Mathematics			
Teacher Licensure (Graduate)	Master of Arts: Education and Human Development	Teaching in Diverse Contexts	Graduate Teacher Licensure: Elementary Education Secondary Education: Math, Science, Social Studies, English, Foreign Language (Spanish or	

			French) Special Education Generalist Birth-21	
	Master of Arts: Curriculum and Instruction	Critical Pedagogy		Global Education

Admissions

Instructions for graduate students are found at <http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Apply/Pages/ApplyNow.aspx>.

Information about all degrees, programs and admission requirements can be found on the school's website at www.ucdenver.edu/education.

Certificates

Content Areas	Certificates
Early Childhood Education	Early Childhood Coaching Buell Early Childhood Leadership Infant Toddler Autism
Health Education	Heath Education
Information & Learning Technologies	Online Teaching
Leadership	Executive Leadership Teacher Leadership
Linguistically Diverse Education	Teaching for Cultural and Linguistic Diversity
Literacy	Adolescent Literacy Early Literacy Literacy and Language Development for English Language Learners

	Language Learners
Math & Science	Mathematical Content Knowledge for Teaching
	Place-based Education
Research	Classroom Assessment
School Library	Highly Effective School Libraries
Special Education	Applied Behavior Analysis
Teacher Education	Culturally Responsive Urban Education
	Health Education
	Global Education

Centers and Partnerships

The Center for Advancing Practice, Education & Research (CAPER) supports and expands the mission and vision of the School of Education & Human Development by engaging in entrepreneurial activities, research, professional development, technical assistance, outreach, engagement and policy and advocacy. We strive to serve as a partner and resource on a local and national level through dissemination of research that affects children, schools and education practice. CAPER is dedicated to outcomes that raise the quality and accessibility of public education to impact and foster student opportunity and achievement. We are home to the following funded projects and affiliated organizations:

- [Continuing and Professional Education](#)
- [Center for Evidence Based Practices in Early Learning \(CEBPEL\)](#)
- [Center for Practice Engaged Education Research \(C-PEER\)](#)
- [Center for Transforming Learning and Teaching \(CTLT\)](#)
- [Culturally Responsive Urban Education \(CRUE\)](#)
- [The Evaluation Center](#)
- [The Faculty Research Support Center](#)
- [Laboratory for Educational Assessment Research and innovation \(LEARN\)](#)
- [NxtGEN Teacher Residency](#)
- [Paraeducator Resource and Research Center \(PAR²A\)](#)
- [Partnership for Learning, Innovation and Progress \(PLIP\)](#)
- [Positive Early Learning Experiences Center \(PELE\)](#)

Course List for the School of Education and Human Development

Click [here](#) for a complete list for the School of Education and Human Development.

Program List for the School of Education and Human Development

Programs

Master of Arts

- [Curriculum and Instruction MA](#)
- [Graduate Teacher Education Program: Master of Arts in Education and Human Development with a concentration in Teaching in Diverse Contexts](#)

Master of Science

- [Mathematics Education Master of Science in Education MEd](#)

Administrative Leadership and Policy Studies

[Go to information for this department.](#)

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](#)

Counseling

[Go to information for this department.](#)

Programs

Master of Arts

- [Counseling MA](#)

Curriculum and Instruction

[Go to information for this department.](#)

Doctoral Studies in Education

[Go to information for this department.](#)

Programs

Doctor of Education

- [Leadership for Educational Equity EdD](#)

Doctor of Philosophy

- [Education and Human Development PhD](#)

Early Childhood Education

[Go to information for this department.](#)

Programs

Endorsement

- [Early Childhood Special Education Specialist Endorsement](#)

License

- [Early Childhood Special Education Specialist Licensure](#)

Master of Arts

- [Early Childhood Education MA](#)

Education & Human Development

[Go to information for this department.](#)

Programs

Master of Arts

- [Education & Human Development \(EDHD\) MA](#)

Information and Learning Technologies

[Go to information for this department.](#)

Programs

Endorsement

- [Instructional Technology Endorsement](#)
- [School Library Endorsement](#)

Master of Arts

- [Information and Learning Technologies MA](#)
- [School Library and Instructional Leadership MA](#)

School Psychology

[Go to information for this department.](#)

Programs

Education Specialist

- [School Psychology PsyD](#)

Administrative Leadership and Policy Studies

←Return to: [School of Education & Human Development](#)

Requirements for Principal Licensure, the MA and EdS degrees, Executive Leadership Administrator License, and EdD and PhD with Administrative Leadership & Policy Studies concentrations

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Web site:

<http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/Pages/Administrative-Leadership-and-Policy-Studies.aspx>

Click on any of the following to go right to that information:

- [Principal Licensure](#)
- [Master of Arts Degree](#)
- [Education Specialist Degree](#)
- [Executive Leadership Administrator Licensure Program](#)
- [EdD Leadership for Educational Equity with Principal or Administrator License](#)
- [PhD Education & Human Development with concentration in Administrative Leadership & Policy Studies](#)

Faculty

For information about faculty in this area, visit <http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/FacultyandResearch/Pages/Our-Faculty.aspx>.

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. Alternatively, the administrator license may be required for district-level leadership positions in Colorado.

Principal Licensure Program

ALPS offers coursework that leads to eligibility to apply for the initial license for principal through the Colorado Department of Education. A passing score on the Principal PLACE content exam is also required for principal licensure through the Colorado Department of Education. Having earned an initial license, those who go on to complete a district sponsored induction program may then apply for 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 submit performance-based assessments (PBAs) during the principal licensure program to LiveText, an online assessment system. PBAs not approved 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](#) for pursuing administrator (superintendent) licensure.

Principal Licensure Cohort Options

Typically, cohorts are comprised of 25 principal candidates who move through the four-semester principal licensure program together. We look for applicants to have a teaching or special services license plus a minimum of three years post-licensure experience. We welcome applicants from all districts into our principal licensure cohorts. However, we partner with metro-area districts to prepare leaders specifically for their schools.

Distance Learning Cohort

The Distance Learning cohort option has a long history of serving students who live far away from campus. Additionally, this cohort offers students a hybrid (online and face-to-face) course format. Students meet in the first summer for a three-day boot camp. In the fall, they experience two Friday/Saturday weekend sessions. And, they attend two more weekend sessions the following spring. During the second summer, they attend a culminating half-day session. The rest of the work is completed online.

Denver Public Schools

The DPS cohort option is one of the DPS Pathways to Principalship. The work in this cohort is focused on leadership for ELL (English Language Learner) student populations as well as cultural leadership. Instructors and students work closely with not only state and national standards, but also with the LEAD Framework to prepare principals. Students meet on one Saturday and two Tuesdays a month over four semesters. A new cohort starts each spring. Please review this information on the [DPS website](#).

Jefferson County Public Schools

The JeffCo cohort option is offered in partnership with Jefferson County Public Schools. Courses occur on twelve Tuesday evenings during each of the four semesters. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced JeffCo administrators.

Northern Cohort

The Northern Cohort option is offered in partnership with the Boulder Valley School District for applicants from northern-metro districts. This cohort meets on Wednesday evenings during each of the four semesters of the program. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced district administrators.

CU South Denver Cohort

The CU South Denver cohort serves southern-metro districts (Douglas County, Cherry Creek, Littleton, Sheridan, Englewood, Lewis-Palmer and Colorado Springs School District 11). This cohort meets on twelve Tuesdays during each of four semesters at the Liniger Building at CU South Denver. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced district administrators.

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: 3 to 9

[EDUC 5752 - Principal Administrator Licensing II](#). Semester Hours: 3 to 9

[EDUC 5753 - Principal/Administrator Licensing III](#). Semester Hours: 3 to 9
[EDUC 5754 - Principal or Administrator Licensing IV](#). Semester Hours: 3 to 9

Total: 32 Hours

MA Program

The MA is designed for those who do not already hold a graduate degree. Master's students will complete 9 semester hours beyond the 32 required in the licensure program, for a total of 41 semester hours of coursework. Candidates must also successfully complete a comprehensive exam paper, reflecting on how the three MA classes will help them in the role of principal.

For the MA degree, students must select at least one course in each of the following three areas plus complete the 32 semester hour principal license:

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

[EDFN 5050 - Critical Issues in American Education](#) Semester Hours: 3

[CLDE 5140 - Multicultural Education](#)

Semester Hours: 3

[CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Std](#)

Semester Hours: 3

Section C: Education & Human Development/Special Education

[EDHD 6100 - Advanced Child Growth and Development](#) Semester Hours: 3
[EDHD 5110 - Human Learning](#) Semester Hours: 3
[EDHD 6140 - Social Contexts of Adolescence and Schooling](#) Semester Hours: 3
[EDHD 5200 - Social Psychology of Learning](#) Semester Hours: 3
[SPED 5140 - Advanced Assessment in Special Education](#). Semester Hours: 3
[SPED 5401 - Action Research and Leadership 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 principal 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 apply for an initial administrator license through the Colorado Department of Education and prepare for a career as a superintendent or other district leader. In addition to coursework, a passing score on the Administrator PLACE content exam is also required for administrator licensure through the Colorado Department of Education. The 12-semester-hour administrator licensure program combines weekend meetings with online work and hands-on clinical practice—usually completed in participants' home districts:

[EDUC 7500 - Strategic Human Capital Development](#)

[EDUC 7510 - Strategic Organizational Management](#)

[EDUC 7520 - Strategic System Improvement](#)

[EDUC 7530 - Strategic Leadership Development](#)

These courses are differentiated for four student types: certificate students, administrator licensure students, EdS students, EdD students and PhD students. Learn more at www.ucdenver.edu/education/elp.

EdD Leadership for Educational Equity with Principal or Administrator License

Students interested in pursuing the principal or administrator license along with a doctorate should instead apply to the EdD Leadership for Educational Equity instead of to the MA or EdS Administrative Leadership & Policy Studies with Principal License or the Executive Leadership Administrator License. See the [Ed Leadership for Educational Equity with Executive Leadership Principal or Administrator License](#) for more information.

PhD Education and Human Development with concentration in Administrative Leadership and Policy

The Administrative Leadership & Policy Studies PhD concentration serves as a key area for those concerned about leadership in schools and a key focus for research by scholars in higher education. A crucial assumption the 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. See the [PhD Education and Human Development](#) for more information.

Counseling

←Return to: [School of Education & Human Development](#)

Counseling MA

Return to: [School of Education & Human Development](#)

- [Degree](#)
- [Admission Requirements](#)
- [Program Requirements](#)

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Website: www.ucdenver.edu/counseling

Faculty

Information about faculty in the Counseling program is available online at www.ucdenver.edu/education.

Degree

The Master of Arts degree in Counseling program prepares professionals for community/mental health agencies, private practice, public schools, and institutions of higher education. Students should obtain faculty advising regarding professional requirements. Students accepted into the Counseling program follow one of the five concentration areas. The clinical mental health and clinical mental health-multicultural counseling tracks follow state licensure requirements for licensed professional counselor; the couple and family therapy track follows licensure requirements designated

by the state of Colorado of licensure as a marriage and family therapist and state licensure requirements for licensed professional counselor; the school track follows both the licensed professional counselor licensure and Colorado Department of Education license as a school counselor requirements; and the higher education and student affairs track follows the Counsel for the Advancement of Standards in Higher Education standards but does not lead to any counseling license.

The clinical mental health, couple and family therapy, and school counselor tracks consist of 63 semester hours. The clinical mental health-multicultural track consists of 66 semester hours. Core requirements that are common to all areas of study are followed by courses specific to each program. The clinical mental health and clinical mental health-multicultural, couple and family therapy, and school counselor tracks require a practicum (150 clock hours) and an internship (600 clock hours). For students in these tracks, the master's degree is a three-year program with course work for two years followed by a year of practicum and internship.

The higher education and student affairs track consists of 45 semester hours. Students in this track are required to complete a 600 hour internship.

The clinical mental health and clinical mental health-multicultural, couple and family therapy, and school counselor tracks are nationally accredited by [CACREP](#), the Council for the Accreditation of Counseling and Related Educational Programs.

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 and additional required materials. Applicants meeting these minimum standards may 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 or graduate level) is required prior to enrollment in the program or may be completed during the first semester 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.

Program Requirements

Counseling students must earn at least a B in skills-oriented courses (COUN 5100, 5160, 6140, 7100, 5910, 5930) or must repeat these courses until they do so. Students in clinical

mental health and clinical mental health-multicultural, couple and family therapy, and school counselor tracks must also take a national comprehensive examination (after all core courses). Students in the higher education and student affairs track must complete a comprehensive examination in the last semester of study. Students may choose to conduct research and submit a thesis (research conducted under faculty advisement) instead of taking a comprehensive examination.

Counseling Core

[COUN 5010](#) - Counseling Theories
[COUN 5100](#) - Techniques of Counseling
[COUN 5110](#) - Group Counseling
[COUN 5150](#) - Family Counseling/Therapy*
[COUN 5330](#) - Counseling Issues and Ethics*
[COUN 5400](#) - Career Development
[COUN 5810](#) - Multicultural Counseling Issues for Individuals and Families
[EDHD 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 COUN core classes are completed.*

Total: 30 Hours

*not required for students in the higher education and student affairs track

Additional Requirements for Clinical Mental Health Counseling (MA)

[COUN 5160](#) - Techniques in Family Therapy
[COUN 5280](#) - Addictions Counseling
[COUN 5820](#) - Strategies of Agency Counseling
[COUN 6250](#) - Mental Health Diagnosis
[COUN 7100](#) - Advanced Theories and Techniques in Psychotherapy
Two Additional Electives (6 semester hours)

Total: 21 Hours

Additional Requirements for Clinical Mental Health Counseling-Multicultural

[COUN 5160](#) - Techniques in Family Therapy
[COUN 5820](#) - Addictions Counseling
[COUN 5820](#) - Strategies of Agency Counseling

[COUN 5830](#) - Special Topics Gender & Sexual Orientation
[COUN 6100](#) - Spiritual Dimensions of Counseling
[COUN 6250](#) - Mental Health Diagnosis
[COUN 6810](#) - Advanced Multicultural Counseling
[COUN 7100](#) - Advanced Theories and Techniques in Psychotherapy

Total: 24 Hours

Additional Requirements for School Counselor License (MA)*

[COUN 5280](#) - Addictions Counseling
[COUN 5425](#) - Developing & Implementing a School Counseling Program: ASCA
[COUN 5815](#) - Introduction to School Counseling
[COUN 5915](#) - Practicum in School Counseling
[COUN 6140](#) - Counseling Children, Adolescents and Their Parents
[COUN 6230](#) - Developmental Counseling in Schools: Prevention & Intervention
[COUN 6250](#) - Mental Health Diagnosis

PLACE Test is required for the Colorado Department of Education license for school counselors.

Total: 21 Hours

*100 hour practicum is required in the schools (COUN 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. COUN 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 Couple and Family Therapy (MA)

[COUN 5160](#) - Techniques in Family Therapy
[COUN 5170](#) - Issues In Family Studies
[COUN 5180](#) - Counseling Couples
[COUN 6000](#) - Introduction to Sex Therapy
[COUN 6140](#) - Counseling Children, Adolescents and Their Parents
[COUN 6160](#) - Advanced Assessment: Theory and Treatment in Family Systems
[COUN 6250](#) - Mental Health Diagnosis

Total: 21 Hours

Additional Requirements for Higher Education and Student Affairs*

[COUN 5050](#) - Foundations of Student Affairs

[COUN 5500](#) - Diversity in Higher Education

[COUN 5130](#) - Student Development Theory

[HDFR 5003](#)

- Leadership and Organizations

[COUN 5070](#) - Higher Education Law and Ethics

[COUN 5930](#) - Internship in Counseling

Comprehensive Exam

Total: 15 Hours

*Students who have completed higher education and student affairs courses as part of the Human Development and Family Relations undergraduate major or minor at CU Denver, will be allowed to use these courses to satisfy program requirements; but, they will not receive graduate credit for these courses. As such, these students will be required to take elective courses to reach the 45 credit hour requirement.

Counseling Clinical Experiences

[COUN 5910](#) - Practicum in COUN

[COUN 5930](#) - Internship in Counseling

Total: 12 Hours

*not required for students in the higher education and student affairs track

Early Childhood Education

←Return to: [School of Education & Human Development](#)

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Website: www.ucdenver.edu/education

Faculty

More information about faculty in this division is available online at www.ucdenver.edu/education.

Early Childhood Education Program

The Early Childhood Education (ECE) program leads to a master's degree in early childhood education and/or licensure or added endorsement in early childhood special education (ECSE). The program prepares early education leaders who will enrich the life experience of young children (birth to 8) and their families through a variety of professional roles.

ECE Program students may select from three program options:

1. MA in ECE
2. ECSE specialist license (initial or added endorsement)
3. MA in ECE plus ECSE specialist license (initial or added endorsement)

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.

The MA in ECE and ECSE focus share course content in:

- literacy 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 special education program provides specialized preparation 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

Program Requirements

Semester Hour Requirements:

MA in ECE: 30 semester hours

ECSE specialist license: 33 semester hours

MA in ECE plus ECSE specialist license: 39 semester hours

MA in ECE plus ECSE specialist added endorsement: 33 semester hours

ECSE specialist added endorsement: 24 semester hours

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 in ECE program take a written, take-home comprehensive exam during the final semester of their program (concurrently with courses at the end of the program sequence).

For the MA in ECE 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.

Education & Human Development

←Return to: [School of Education & Human Development](#)

Education & Human Development (EDHD) MA

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Website: www.ucdenver.edu/education

Faculty

Information about EDHD faculty is available online at www.ucdenver.edu/education.

Master's Degree

The MA program in education and human development prepares students to facilitate the teaching/learning process and to lead and work in community-based environments. Thus, many students pursue the degree to enhance their skills as professional classroom teachers or lead in the community. The degree also provides skills necessary for a variety of roles in educational and teaching settings or community environments where knowledge of learning, development, understanding family and community systems, motivation, and research is essential such as teaching at the community college and teaching-based colleges and universities levels, teaching adults, consulting, developing assessments, community-based leadership, and conducting program development and evaluation. Other students seek the MA as preparation for advanced study in educational psychology, family science and human development, research, or related fields.

Areas of Study

Four major areas of concentration are available- learning, human development and family relations, research and evaluation, and assessment. Regardless of the concentration area selected, all students must:

- demonstrate competence in education and human development by successfully completing 30 semester hours of relevant course work;
- complete a capstone experience either a practicum or a master's thesis in consultation with their faculty advisor based on the students' professional and academic goals; and
- perform satisfactorily on a written comprehensive examination (excluding thesis students) (typically during the last term enrolled in regular courses).

Learning

This program prepares students to apply research-based knowledge and to develop culturally relevant knowledge and skills that inform a wide range of practices and issues within the field of education and innovative learning environments. This program concentration provides opportunities for the student to develop an in-depth understanding about human learning across age groups, in formal and informal educational and community contexts. Courses will focus on the learning process including cognition,

instructional design, motivation and developmentally appropriate practices to support learning for children, adolescents and adults within a sociocultural framework..

Human Development and Family Relations (HDFR)

Students will engage in developing their skills to work in and lead community-based organizations including, but not limited to secular, faith-based, for profit, nonprofit, school-based, and local, state, federal and international organizations. The importance of family diversity and social justice is stressed throughout the HDFR curriculum through its courses and experiences. Students can also develop their knowledge in family relations in preparation for doctorate studies in family science and human development or related areas.

The EDHD program does provide a pathway for MA students (HDFR and Learning areas) to pursue their PhD in EDHD with a Family Science and Human Development concentration. For more information please visit our School of Education and Human Development.

Students who complete the MA in EDHD with a HDFR emphasis will also be eligible to complete the bilingual (Spanish) Family and Community Services concentration area in preparation to work with Spanish speaking families and communities. Advisor approval is required for this concentration.

The HDFR area also provides classes to all School of Education and Human Development (SEHD) graduate programs, offering courses in family theories, family dynamics, and diverse family systems, Latino family, school and community systems, family resource management, leadership and organizations, grant writing and fund raising, program development and other family relations based courses.

Research and Evaluation Methods (RSEM)

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.

Assessment

This program concentration provides opportunities for you to develop an in-depth understanding about educational psychology as it relates to learning-related assessment. You'll address issues in both classroom and large-scale assessment and focus on other forms of assessment, such as portfolios and performance assessments. You also may specialize in assessment in a content area like literacy or mathematics.

Information and Learning Technologies

←Return to: [School of Education & Human Development](#)

Information and Learning Technologies MA

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Faculty

Information about Information ILT faculty is available online at
www.ucdenver.edu/education.

Master's Degree

The Information and Learning Technologies (ILT) master's program helps people design and use various tools and media for learning, teaching, and professional leadership. Applying sound principles of learning, instructional and media design, and professional development, you will integrate a variety of learning strategies and technologies-such as digital media, eLearning, digital storytelling, social media and networking, games, and smart and mobile tools-into your educational responsibilities in school and workplace settings. Throughout the program you will engage in assessment and evaluation activities to improve services, be accountable for outcomes, and develop professional identities as thought leaders in your professional communities of practice.

The ILT master's program has three tracks from which to choose based on your professional goals:

- The Instructional Design and Adult Learning track prepares people to work in adult learning settings such as business, higher education, healthcare, nonprofits or government.

- The eLearning Design and Implementation track prepares people to teach and facilitate learning in eLearning environments and prepares people to develop online courses, experiences, and digital learning materials.
- The K-12 Teaching track helps teachers integrate technologies into schools and classrooms with a focus on supporting student learning and improving teaching practices. Licensed teachers may apply for an added endorsement in instructional technology through the Colorado Department of Education upon K-12 program and exam completion.

Technology Expectations

The ILT program uses computers and related technologies either as a focus of or a tool for learning, teaching, and professional development work. Students are expected to use their campus email accounts and check them frequently. Students need convenient, consistent, and reliable access to Internet-connected computers. In addition to textbooks, software purchases may be required or recommended for specific courses.

Program Requirements

Instructional Design and Adult Learning

In this track, you complete 30 graduate semester hours of coursework from a set of core courses and approved electives within the ILT program. This track is designed to help you develop skills for creating quality instructional materials and professional-learning experiences that help adult-learning audiences learn and perform better on the job; throughout the program, you will apply learning, instructional design (ID), and professional-development principles to the creation of digital and web resources, multimedia presentations, job aids, and online-learning modules. These skills are in high demand in corporate, healthcare, government, non-profit, and higher education settings. You will experience interactive learning, hands-on projects, and collaborative teamwork as you develop expertise in core ID skills: creating curriculum, evaluating program quality, encouraging innovation, and leading organizations toward productive change and growth. Like all ILT students, you will create an online portfolio—referred to as a base camp—that helps you establish your professional web presence and digital footprint as a thought leader and showcase your instructional-design accomplishments to employers and other professionals. The entire program takes about two years to complete.

Please consult the ILT Current Student Resources website for complete program requirements.

eLearning Design and Implementation

In this fully online track, you complete 30 graduate semester hours of coursework from a set of core courses and approved electives within the ILT program. The focus of this track is on the planning, design, development, delivery, facilitation and evaluation of

digital and online learning resources, experiences, and programs for higher education, K-12, and professional-learning (corporate, healthcare, government, non-profit) audiences; throughout the program, you will apply learning, instructional and media design, and professional-development theory to the creation of digital and online instructional products and experiences. You will experience interactive learning, hands-on projects, and collaborative teamwork while learning to create quality eLearning products and experiences and while encouraging innovation and positive change within your workplace. You will create an online portfolio—referred to as a base camp— that helps you establish your professional web presence and digital footprint as a thought leader, showcase your accomplishments, and share your work with your professional communities of practice. The entire program takes about two years to complete.

Please consult the ILT Current Student Resources website for complete program requirements.

K-12 Teaching

Students in this ILT track may select a 30graduate semester hour MA and/or an endorsement program in instructional technology (24graduate semester hours). For the full Master of Arts degree, you complete coursework consisting of a required core and approved electives. Courses in the K-12 option focus on the practical needs of teachers in their integration of technology and on ways to give leadership and professional-development opportunities to your school and district. The plan of study is accredited by NCATE and AECT [SR1] and is designed in line with standards of the Colorado Department of Education. You will create an online portfolio—referred to as a base camp—that serves as a learning resource for your students, colleagues, and other professionals. Licensed teachers may complete an endorsement-only program in instructional technology consisting of 24 graduate semester hours. In addition to coursework, a passing score on the Instructional Technology PLACE content exam is also required to apply for the endorsement through the Colorado Department of Education.

Note: The courses in this program are fully online with exception of one blended-learning course. Please consult the ILT Current Student Resources website for complete program requirements.

Comprehensive Examination for all ILT Students

The comprehensive exam consists of a professional portfolio—referred to as a base camp—wherein students demonstrate program competencies through work products and related accomplishments. The base camp is created throughout the ILT program and submitted for faculty review during the final semester. For more information, see the ILT Current Student Resources website.

School Psychology

←Return to: [School of Education & Human Development](#)

School Psychology PsyD

Return to: [School of Education & Human Development](#)

- [Degree](#)
- [Admission Requirements](#)

Program Leader: Franci Crepeau-Hobson

Office: Lawrence Street Center, 1113

Phone: 303-315-6315

Fax: 303-315-6349

E-mail: franci.crepeau-hobson@ucdenver.edu

Website: www.ucdenver.edu/education/spsy

Faculty

Information about faculty in the school psychology program is available online at www.ucdenver.edu/education.

Degree

The doctor of psychology (PsyD) degree in school psychology is a 96 graduate semester-hour program that leads to licensure as a school psychologist by the Colorado Department of Education and prepares graduates to apply for licensure by the Colorado State Board of Psychologist Examiners.

The program is based on the *Accreditation Domains and Standards* of the American Psychological Association (APA) and the *Model for Comprehensive and Integrated School Psychological Services* endorsed by the National Association of School Psychologists (NASP). This model and these standards promote the following domains of psychology: data-based decision-making and accountability; consultation and collaboration; interventions and mental health services to develop social and life skills; school-wide practices to promote learning; preventative and responses services; family-school collaboration services; diversity in development and learning; biological bases of behavior; research and program evaluation; and legal, ethical and professional practice.

Consistent with a practitioner-scholar model, the PsyD Program in School Psychology prepares professional school psychologists through rigorous academic study integrated with intensive supervised clinical practice. The Program includes an emphasis on the

delivery of mental health services in schools, as well as the development of advanced level practice skills. The Program stresses the application of scholarly findings to practice, as well as a respect for all aspects of diversity.

Bilingual School Psychologist Concentration Option

This optional specialization provides School Psychology students with the knowledge and skills to effectively serve English language learners in the school setting. In addition to the three 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 a combined score of at least 300 on the verbal and quantitative sections 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 or vita, a personal statement that outlines their reasons for pursuing a degree in school psychology at CU Denver, and three letters of recommendation. The highest ranked applicants will be invited to a full-day group interview that includes a program orientation, a writing assignment, and a campus tour.

Application materials are available at https://soa.prod.cu.edu/degreeprog/applyDEGREEPROG_CUDEN/login.action. All materials must be submitted online by December 1 for fall semester admissions. 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/personal statement
- resume or vita
- three letters of recommendation
- 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 Doctor of Psychology Degree in School Psychology and Licensure

Students will complete course work in learning and cognition, academic interventions, legal and professional issues, psychological assessment, crisis intervention, counseling and other direct interventions, and consultation. Specific course requirements include three prerequisite courses, 71 credit hours of coursework, 7 credit hours of practica (minimum of 500 hours in the field), 6 credit hours of clinical externship (minimum of 500 clock hours in the field), 8 credit hours of internship (minimum of 1500 clock hours in the field), and 4 capstone project credit hours. Successful completion of the School Psychology Praxis exam during the course of study and passing of comprehensive examinations are also required. Prerequisites include an undergraduate or graduate course in each of the following: measurement concepts, basic statistics, and child development. Students may be admitted to the program without first completing these prerequisites; however, these courses must be completed during the first year of study.

Program Requirements

Students will complete the following core course work:

- [COUN 5010](#) - Counseling Theories
- [EDHD 5240](#) - Cognition and Instruction
- [PSYC 7220](#) - Advanced Biological Bases of Behavior
- [PSYC 7511](#) - Historical and Philosophical Foundations of Psychology
- [PSYC 8550](#) - Advanced Social Psychology
- [RSEM 6100](#) - Methods of Qualitative Inquiry
- [RSEM 7050](#) - Methods of Survey Research
- [RSEM 7110](#) - Intermediate Statistics
- [RSEM 7210](#) - Program Evaluation
- [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 6350](#) - School-Based Interventions: Children, Youth and Families
- [SPSY 6400](#) - School-Based Interventions: Groups, Classrooms and Systems
- [SPSY 6410](#) - Psychoeducational Assessment of Culturally and Linguistically Diverse Students
- [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 6700](#) - Advanced Seminar in School Psychology
- [SPSY 7980](#) - Clinical Supervision and Administration of Psychological Services

Supervised Experiences

[SPSY 6911](#)- School Psychology Practicum

[SPSY 6917](#)-Advanced Practicum in Psychological Assessment

[SPSY 6918](#)- Clinical Externship

[SPSY 6930](#)-School Psychology Internship

Total: 96 Hours

The doctor of psychology in school psychology degree also requires satisfactory completion of a professional portfolio, demonstrating mastery of the program objectives, a passing score (≥ 147) on the ETS PRAXIS specialty exam in school psychology, a passing score on a written comprehensive examination, and enrollment in 4 credit hours of SPSY 8980 and completion of a capstone/applied research project .

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.

College of Engineering and Applied Science

- [Overview](#)
- [Graduate Study in Engineering](#)
- [Research Centers](#)
- [Continuing Engineering Education Program \(CEEP\)](#)
- [Programs of Study](#)

Dean Marc Ingber

Associate Dean for Research Ken Ortega

Associate Dean for Student Affairs Bruce Janson

Assistant Dean for International Education Chengyu Li

Contact

Office:

North Classroom 3034

1200 Larimer Street, 3rd Floor

Telephone: 303-556-2870

Fax: 303-556-2511

Email: engineering@ucdenver.edu

Mailing Address:

College of Engineering and Applied Science

Campus Box 104
P.O. Box 173364
Denver, CO 80217-3364

[Application Deadlines](#)

[Graduate Programs](#)

Bioengineering

Master's: February 1 (priority); March 15 (regular)

PhD: December 1 (priority); January 15 (regular)

Civil Engineering, Computer Science and Engineering, Electrical Engineering, Mechanical Engineering

Domestic

Fall: May 1

Spring: October 1

*Summer**: February 15

International

Fall: April 15

Spring: September 15

*Summer**: February 1

**Not all programs admit students for the summer term.*

[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 business, management, computer science, behavioral science or other areas together with new engineering skills in your field.

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, according to the Bureau of Labor Statistics. 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.

Electrical engineering's graduate program prepares students for technical leadership roles in industry, academia, and government in our rapidly changing technological world. The program offers numerous specialties within electrical engineering, including computer engineering, embedded systems, electromagnetics, microwave systems, optics, electrical neuroscience engineering, control systems, communications and signal processing, power systems, smart grids, renewable energies, VLSI system design, and electron devices.

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.

[Graduate Study in Engineering](#)

The College of Engineering and Applied Science offers graduate programs in bioengineering, civil engineering, computer science and engineering, electrical engineering, and mechanical engineering, as well as 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 general graduate admission information and policies, see the [Information for Graduate Students](#) section of this catalog.

TOEFL/Language Requirements

For the most up-to-date information about TOEFL/language requirements, please visit the [Office of International Admissions website](#).

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](#).)

Nondegree Students

Nondegree graduate students may apply 9 semester hours of graduate-level course work toward a master's degree in engineering from CU Denver.

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 geostructures. Resolutions of geostructural 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: Arunprakash Karunanithi

Telephone: 303-556-2370

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: ucdenver.edu/CEEP

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. Visit the website at ucdenver.edu/CEEP for more information and a list of current offerings.

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; students should take courses in logical sequence.

Programs

Doctor of Philosophy

- [Engineering and Applied Science PhD](#)

Bioengineering

[Go to information for Bioengineering.](#)

Programs

Doctor of Medicine/Doctor of Philosophy

- [Bioengineering MD-PhD](#)

Doctor of Medicine/Master of Science

- [Bioengineering MD-MS](#)

Doctor of Philosophy

- [Bioengineering PhD](#)

Master of Business Administration/Master of Science

- [Bioengineering Dual MS-MBA](#)

Master of Science

- [Bioengineering MS](#)

Civil Engineering

[Go to information for Civil Engineering.](#)

Programs

Certificate

- [Geographic Information Systems Graduate Certificate](#)
- [Sustainable Urban Infrastructure Graduate Certificate](#)
- [Water Resources Engineering for Urban Watershed Management Graduate Certificate](#)

Doctor of Philosophy

- [Civil Engineering PhD](#)

Master of Science

- [Civil Engineering MS and MEng](#)

Computer Science and Engineering

[Go to information for Computer Science and Engineering.](#)

Programs

Doctor of Philosophy

- [Computer Science and Information Systems PhD](#)

Master of Science

- [Computer Science MS](#)

Electrical Engineering

[Go to information for Electrical Engineering.](#)

Programs

Master of Engineering

- [Electrical Engineering MEng](#)

Master of Science

- [Electrical Engineering MS](#)

Mechanical Engineering

[Go to information for Mechanical Engineering.](#)

Programs

Master of Engineering

- [Mechanical Engineering MEng](#)

Master of Science

- [Mechanical Engineering MS](#)

Bioengineering

← Return to: [College of Engineering and Applied Science](#)

Chair: Robin Shandas

Office: Room 6C03 Research 2 - Building P15 (Anschutz Medical Campus)

Telephone: 303-724-5893

Fax: 303-724-5800

E-mail: bioengineering@ucdenver.edu

Website: engineering.ucdenver.edu/bioengineering

Faculty

Core Faculty

Robin Shandas, PhD

Professor

robin.shandas@ucdenver.edu

Specialties: Novel methods for translational bioengineering

Richard Benninger, PhD

Assistant Professor

richard.benninger@ucdenver.edu

Specialties: Optical microscopy; pancreatic islet biology and biophysics; diabetes

Cathy Bodine, PhD

Associate Professor

cathy.bodine@ucdenver.edu

Specialties: Assistive technology, technology, aging, device design

Emily Gibson, PhD

Assistant Professor

emily.gibson@ucdenver.edu

Specialties: Microfluidics technology, optical microscopy, and spectroscopy

Kendall Hunter, PhD

Assistant Professor

kendall.hunter@ucdenver.edu

Specialties: Development, diagnosis, and progression of pulmonary hypertension

Craig Lanning, MS

Research Instructor

craig.lanning@ucdenver.edu

Specialties: Digital manufacturing, reverse engineering, medical device and software design

Daewon Park, PhD

Assistant Professor

daewon.park@ucdenver.edu

Specialties: Biomaterials; drug delivery; tissue engineering and regenerative medicine

Richard Weir, PhD

Research Associate Professor

richard.weir@ucdenver.edu

Specialties: Neural Engineering, biomechatronic design, and rehabilitation engineering

Michael Yeager

Assistant Professor

michael.yeager@ucdenver.edu

Specialties: Cardiopulmonary disease, autoimmunity, in vivo cell lineage tracing & imaging

Affiliated Faculty

Students receive instruction from affiliate faculty in the University of Colorado system, including CU Boulder and the CU School of Medicine. Faculty research areas include imaging and biophotonics, cardiovascular biomechanics and hemodynamics, orthopedic biomechanics, neuromuscular control and assistive technology, surgery and urological sciences, ophthalmology, neuroscience engineering, polymers and diabetes. Please consult our website (ucdenver.edu/bioengineering) for more information.

Mission Statement

The Department of Bioengineering bridges the fields of engineering and medicine with a core mission of applying engineering principles and analyses to improving human health. The department will fulfill this mission by providing opportunities for training, research, and service in bioengineering to faculty, students, and residents of Colorado and the greater Rocky Mountain region.

Program Objectives

The Department of Bioengineering offers high quality training in bioengineering that is both flexible and multidisciplinary. A design-based focus permeates every aspect of our training philosophy which can be summarized by the following question: what does the user want and how can I best utilize my bioengineering training to achieve this need? Our academic instruction focuses on developing core competencies in life sciences, quantitative methods, technology, and research methods.

Graduate Program

All graduate students begin the program with intensive study of the bioengineering core. In consultation with an advisor, each student chooses elective courses, training pathways, and research to fit talents, preparation, and career plans. Students earn the MS, MS-MBA, MD-MS, MD/PhD, or PhD degree in bioengineering with a choice of training pathways in basic research, clinical applications, or commercialization of medical technologies. [Graduate School Rules](#) apply to all programs. Please consult our website (ucdenver.edu/bioengineering) for more information on admissions requirements, degree requirements, core courses, training pathways and faculty research areas.

Programs

- [Bioengineering Dual MS-MBA](#)
- [Bioengineering MD-MS](#)
- [Bioengineering MD-PhD](#)
- [Bioengineering MS](#)
- [Bioengineering PhD](#)

Civil Engineering

← Return to: [College of Engineering and Applied Science](#)

Click on any of the following to go right to that information:

- [Mission Statement](#)
- [Graduate Program](#)

Chair: Kevin L. Rens

Associate Chair: Bruce Janson

Office: North Classroom 3037

Telephone: 303-556-2871

Fax: 303-556-2368

Website: engineering.ucdenver.edu/civil

Faculty

Professors:

Nien-Yin Chang, PhD, Ohio State University, PE-Ohio and Colorado

James C.-Y. Guo, PhD, University of Illinois at Urbana-Champaign, PE-Colorado

Bruce N. Janson, PhD, University of Illinois at Urbana-Champaign

Kevin L. Rens, PhD, Iowa State University, PE-Colorado

Jonathan T.H. Wu, PhD, Purdue University

Associate Professors:

Caroline Clevenger, PhD, Stanford University, PE, RA-Colorado

Arunprakash Karunanithi, PhD, University of Connecticut

Yail Jimmy Kim, PhD, Queen's University, PE-Canada

Wesley Marshall, PhD, University of Connecticut, PE-Connecticut

David C. Mays, PhD, University of California at Berkeley, PE-Colorado, California

Assistant Professors:

Chengyu Li, PhD, Arizona State University; PE- Colorado, North Carolina, New Mexico,

Washington; SE-Utah, Arizona, Washington

Indrani Pal, PhD, Cambridge University
Frederick R. Rutz, PhD, University of Colorado, PE-Colorado

Professors Emeriti:

Paul E. Bartlett, MS, University of Colorado, PE-Colorado
David W. Hubly, PhD, Iowa State University, PE-Colorado
Lynn E. Johnson, PhD, Cornell University, PE-Connecticut
Oren G. Strom, PhD, University of Texas at Austin

Mission Statement

The mission of the Department of Civil Engineering:

- deliver high-quality comprehensive degree programs (BS, MS, MEng, PhD, EAS PhD) to all of our students at both the undergraduate and graduate levels
- matriculate students who excel in professional practice and leadership and who possess compassion and respect for people of all cultural backgrounds
- teach our classes with excellence, whether in a traditional classroom setting or online
- offer our students state-of-the-art laboratories, equipment and classrooms with the latest technology needed for a complete learning experience
- develop ambitious and innovative research programs involving both faculty and students through funding from federal, state and local sources
- provide supportive mentoring and guidance to our students through teaching, research and advising
- produce students who can work as leading professionals in civil engineering and in many other fields for which civil engineering knowledge can be a foundation

Graduate Program

Requirements for Admission

Applicants to the [master of science in civil engineering](#) (MS) program must satisfy all requirements specified in the [Information for Graduate Students](#) chapter of this catalog. Most applicants have an ABET accredited undergraduate degree in civil engineering. An undergraduate GPA of 3.0 (on a 4-point scale) or better is required for regular admission. Applicants must submit evidence of adequate preparation for graduate study by either (a) submitting official GRE scores, or (b) documenting an earned bachelor's degree with a GPA of 3.00 or higher from an institution accredited by a U.S. accreditation body, or an earned master's degree with a GPA of 3.50 or higher from an institution accredited by a U.S. accreditation body. Applicants whose undergraduate degree is in a field other than civil engineering may also be admitted into the MS in civil engineering degree program, if they have or will complete undergraduate prerequisite courses as required by the Department of Civil Engineering and the student's graduate advisor.

Applicants to the [master of engineering](#) (MEng) program must have a baccalaureate degree in engineering, math, science, economics or planning from an accredited college or university and satisfy all requirements specified by the Graduate School.

Prospective PhD students should contact the Department of Civil Engineering to inquire about application requirements and to obtain the “Rules and Policies for the Coordinated PhD Program,” a coordinated program with the University of Colorado Boulder.

In addition to the coordinated Civil Engineering PhD, the multidisciplinary [engineering and applied science PhD](#) is available through the Department of Civil Engineering.

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 should 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.

Computer Science and Engineering

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Click on any of the following to go right to that information:

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- [Graduate Program](#)
- [Computer Science and Information Systems PhD Program](#)
- [Engineering and Applied Science PhD](#)

Chair: Gita Alaghband

Program Assistant: Sarah Mandos

Office: Lawrence Street Center, 8th Floor

Telephone: 303-315-1408

Fax: 303-315-1410

Website: engineering.ucdenver.edu/cse

Faculty

Professors

Gita Alaghband, PhD, University of Colorado

Research areas: parallel and distributed systems, parallel algorithms, applications and languages, high-performance computing

Tom Altman, PhD, University of Pittsburgh
Research areas: algorithms, optimization, theory

Boris Stilman, PhD, National Research Institute for Electrical Engineering, Moscow, Russia
Research areas: artificial intelligence, linguistic geometry

Associate Professors

Bogdan Chlebus, PhD, Warsaw University, Poland
Research areas: combinatorial algorithms, communication networks, distributed computing

Min-Hyung Choi, PhD, University of Iowa
Research areas: computer graphics, animation, virtual reality, human computer interface

Ellen Gethner, PhD, University of British Columbia
Research areas: graph theory, number theory, combinatorics, discrete geometry, computational geometry, visualization, algorithms

Ilkyeun Ra, PhD, Syracuse University
Research areas: computer networks, high-performance computing, distributed computing systems

Assistant Professors

Farnoush Banaei-Kashani, PhD, University of Southern California
Research areas: big data management, big data mining, data science, geospatial data analysis, data stores (NewSQL)

Tam Vu, PhD, Rutgers University
Research areas: mobile and wireless systems, mobile security, wireless networking, cyber physical system focusing on health care, smart building, smart and connected cities

Assistant Professor (Clinical Teaching Track)

Thomas Augustine, DSc
Research areas: cybersecurity analysis, implementation and education; network operations; secure coding

[Mission Statement](#)

With the advances in technology and the rapid and prevalent growth of the information-based economy, computer science has become an enabling science for nearly all disciplines that impact engineering, science, business, health and government. The future of the discipline promises even more innovative advances. The Department of Computer Science and Engineering at the University of Colorado Denver is committed to providing outstanding education and research training to our diverse undergraduate and graduate students for productive careers in industry, academia and government in the Denver

metropolitan area, state and beyond. Our faculty strive for excellence in teaching, research and service by covering a broad spectrum of the discipline's core fundamentals, as well as applied aspects including those of interdisciplinary nature. We actively engage our students in classroom and out-of-classroom research and help them develop the skills needed to solve complex real-world technological problems of modern society.

The Department of Computer Science and Engineering offers MS and PhD degrees:

- The [MS degree](#) is awarded in computer science (CS) to those students who wish to pursue graduate studies to further develop their education. The MS in CS graduate program covers the core knowledge of key concepts of the computer science as well as offers flexibility to pursue specializing in various fields of interests.
- The [Computer Science and Information Systems PhD](#) program is an interdisciplinary, joint program between the Department of Computer Science and Engineering in the College of Engineering and the Applied Science and Information Systems program in the Business School. The program offers a CS track with PhD degree awarded in CSIS from College of Engineering and an IS track where the degree is awarded in CSIS from the Business School.
- The [multidisciplinary engineering and applied science PhD](#) degree is available through the Department of Computer Science and Engineering.

The Department of Computer Science and Engineering also offers a graduate certificate in software engineering.

- The graduate certificate in software engineering is designed for working professionals, or computer science students beginning their careers, who are in the field of software engineering and/or software development. This certificate requires a previous computer science or systems engineering degree. At the start of the certificate program, students are expected to have a strong understanding of software development, in terms of software construction, software coding and basic software design. Contact the department at 303-315-1408 for more information.

Most up-to-date information on all programs offered through the Computer Science and Engineering Department can be obtained from the department's website at: engineering.ucdenver.edu/cse.

Graduate Programs

The Department of Computer Science and Engineering (CSE) offers a [master of science in computer science](#). The CSE department, together with the Business School, also offers a joint program leading to a [doctoral degree in computer science and information systems](#). In addition, the [engineering and applied science doctor of philosophy degree](#) is available through the CSE department.

Expertise expand several areas of research in algorithms, artificial intelligence, computer architectures, computer graphics, computational geometry, communication networks, computer security, database systems, distributed computing, high-performance

computing, Internet, operating systems, parallel and distributed systems, simulation, software engineering and virtual reality.

Requests for applications for graduate study in computer science and engineering should be addressed to:

Graduate School
Campus Box 163
P.O. Box 173364
Denver, CO 80217-3364

COURIER ADDRESS (UPS, FEDEX, etc.):
Graduate School
1380 Lawrence Street, Suite 1251
Denver, CO 80204

Contact Email: CEASGApplications@ucdenver.edu
Phone: 303-315-2179

All applicants for admission must submit complete credentials as outlined in the instructions that accompany the application materials.

Master of Science (MS) in Computer Science
Admission Requirements

Applicants should hold a bachelor's degree from an institution comparable to the University of Colorado. They need to have sufficient programming experience and mathematical maturity to understand advanced courses. Qualified applicants holding a degree outside computer science, computer engineering or equivalent fields may need to take additional undergraduate courses before starting the graduate program.

Admission decisions are based on prior academic performance, letters of recommendation, English proficiency, if applicable, as well as the applicant's written statement of purpose.

Additional requirements include:

- (1) 10 credit hours, on the semester basis, of university-level calculus
- (2) at least one math course beyond calculus, such as advanced calculus, differential equations, linear algebra, probability, statistics or combinatorial analysis.

Students lacking some of these requirements, whose background is otherwise satisfactory, may be admitted with the understanding that the certain undergraduate courses have to be completed after admission. Additional information regarding the admissions process may be found at engineering.ucdenver.edu/cse.

Required GPA

Regular admission: Applicants should have an undergraduate GPA of at least 3.0.

Provisional admission: Applicants may be accepted as “provisional degree students.” This status is indicated in the acceptance letter along with the conditions that need to be satisfied by a specific deadline for the student to obtain regular status.

Transfer Credit

A maximum of 9 semester hours of graduate course work may be transferred into the program based on department approval. In principle, core courses must be taken from the CSE department at CU Denver.

Note: Candidates applying for the MS study will be individually evaluated by the department’s graduate committee. A letter with a decision will be sent to the applicant by the CSE chair.

Computer Science and Information Systems (CSIS) PhD*Admission*

Prospective students apply to either the Department of Computer Science and Engineering (CSE) or to the Business School—students with a computer science background should apply through the CSE department and students with an information systems background should apply through the Business School.

Admission criteria include GPA (undergraduate and graduate), standardized test scores (GRE), letters of recommendation, prior achievements in academia and industry and an 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.

Students without a master’s degree in either computer science or information systems will need to take additional course work sufficient to complete the requirements of a master’s degree in one of the two areas. Exceptionally motivated students with BS degrees in computer science, information systems, or closely related fields may apply to the CSIS PhD program directly. Students without a master’s degree must complete at least 30 hours of CSIS PhD required course work in addition to the 30 hours of dissertation.

Supervision of the PhD Program

The PhD program is supervised by the two program co-directors. The duties of the co-directors include scheduling of doctoral courses, setting program policies subject to approval of business and CSE faculty, working with advisors 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 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 should be from outside of the CSE department and the information systems faculty.

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. Go to **engineering.ucdenver.edu** to learn more.

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 (engineering.ucdenver.edu/civil)
- Computer Science and Engineering (engineering.ucdenver.edu/cse)
- Electrical Engineering (engineering.ucdenver.edu/electrical)
- Mechanical Engineering (engineering.ucdenver.edu/mechanical)

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.

Electrical Engineering

←Return to: [College of Engineering and Applied Science](#)

Click on any of the links below to go right to that information:

- [Mission Statement](#)
- [Graduate Program](#)

Chair: Stephen D. Gedney

Program Assistant: Annie Bennett

Office: North Classroom, 2615

Telephone: 303-556-2872

Fax: 303-556-2383

Website: engineering.ucdenver.edu/electrical

Faculty

Professors

Hamid Fardi, PhD, University of Colorado Boulder

Stephen Gedney, University of Illinois at Urbana-Champaign

Titisa Papantoni, PhD, University of Southern California, Professional Engineer (PE)-

Greek Chamber of Professional Engineers and Texas
Miloje Radenkovic, PhD, University of Belgrade, Yugoslavia

Associate Professor

Jan Bialasiewicz, PhD, DSc, Silesian Technical University, Poland, PE-Colorado
Mark Golkowski, PhD, Stanford University
Tim Chifong Lei, PhD, University of Michigan
Fernando Mancilla-David, PhD, University of Wisconsin at Madison

Assistant Professors

Dan Connors, PhD, University of Illinois Urbana-Champaign
Yiming Deng, PhD, Michigan State University
Jaedo Park, PhD, The Pennsylvania State University

Senior Instructors

Brian Atkinson, MS, University of Colorado Denver

[Electrical Engineering Programs](#)

Modern electrical engineering is a very broad and diverse field. Never before has there been such a challenge and opportunity for electrical engineering to serve mankind. Today's electrical engineers are involved in the development of technology, materials and products to improve the quality of life. They are concerned with the generation and transmission of power, the control and utilization of natural and synthetic resources, the communication of data and information and the intelligent use of computers in consumer as well as industrial products and processes. Systems in electrical engineering range in size from microprocessors through megawatt energy conversion systems to global audio and video communication networks.

At CU Denver, the electrical engineering curriculum prepares students for careers in product design, manufacturing, research, development, operation and plant engineering, technical sales and application engineering. The goal is to educate and inspire students to achieve their maximum career potential.

[Mission Statement](#)

We provide graduate programs and an ABET-accredited undergraduate program that are accessible to a diverse group of students-students of different racial and cultural backgrounds, full-time students as well as those who have considerable work and family commitments outside their academic learning and students with a wide variety of work experiences.

[Graduate Program](#)

The Department of Electrical Engineering offers graduate programs with the following areas of emphasis: communications and signal processing; controls and signal processing;

microelectronics and VLSI; fields, waves and optics; computer engineering and embedded systems design; and energy and power systems. The department offers graduate programs leading to the degrees of [master of science in electrical engineering](#) and [master of engineering](#). In addition, the multidisciplinary [engineering and applied science doctor of philosophy](#) degree is available through the Department of Electrical Engineering.

Requirements for Admission

Additional admissions information, including links to the online application, is available on the college website.

The minimum requirements for “regular” admission to the master’s program are: BS in electrical engineering, or equivalent degree in math, physics or other engineering disciplines, from a reputable institution, with a GPA of at least 3.0, on a 4.0 scale. Satisfaction of minimum requirements does not guarantee admission: The grades obtained in the student’s area of concentration are important factors in the consideration, and so are possible multiple repetitions of fundamental courses. Students who do not meet the requirements for direct admission to the program may be admitted “conditionally”: that is, they may be required to take or repeat certain undergraduate courses before their admission to the program is official.

For those undergraduate students with degrees in science and non-electrical engineering wishing to pursue graduate study in the electrical engineering department there is no restriction or constraint in being admitted into the master of science in electrical engineering graduate program. However, they must fulfill any prerequisite course requirements assigned to any graduate course in the department. Students with an undergraduate degree in areas other than electrical engineering must receive approval from their graduate advisor before registering for a class in electrical engineering. All students must plan a program of study in consultation with their departmental advisor(s), during the first semester of study, and submit for approval to the department.

Applicants must submit evidence of adequate preparation for graduate study by either (a) submitting official GRE scores, or (b) documenting an earned bachelor’s degree with a GPA of 3.00 or higher from an institution accredited by a U.S. accreditation body, or an earned master’s degree with a GPA of 3.50 or higher from an institution accredited by a U.S. accreditation body.

Domestic applicants may request an application through:

Department of Electrical Engineering
University of Colorado Denver
Campus Box 110
P.O. Box 173364
Denver, CO 80217-3364

Telephone: 303-556-2872
Facsimile: 303-556-2383

International Applicants

Applicants, who are not U.S. citizens or permanent residents of the United States, should make application through the University of Colorado Denver, Office of International Affairs, 185 UCD, P.O. Box 173364, Denver, CO 80217-3364, U.S.A.; telephone 303-315-2231; facsimile 303-315-2246.

All applicants for graduate program admission need to submit complete credentials as outlined in the instruction sheet which accompanies the application materials. Three recommendations are required.

Mechanical Engineering

← Return to: [College of Engineering and Applied Science](#)

Click on any of the following to go right to that information:

- [Mission Statement](#)
- [Program Objectives](#)
- [Graduate Program](#)
 - [Concurrent Bachelor's/Master's Degrees](#)
 - [Engineering and Applied Science PhD](#)

Chair: Samuel W. J. Welch
Office: North Classroom 2024
Telephone: 303-556-8516
Fax: 303-556-6371
Website: ucdenver.edu/mechanical

Faculty

Professors:

Peter E. Jenkins, PhD, Purdue, MBA, Pepperdine, PE-Texas
J. Kenneth Ortega, PhD, University of Colorado at Boulder

Associate Professors:

Ronald A. L. Rorrer, PhD, Virginia Polytechnic Institute and State University, PE-Colorado
L. Rafael Sanchez, PhD, Michigan Technological University, PE-Colorado

Mohsen Tadi, PhD, Virginia Polytechnic Institute and State University
Samuel W. J. Welch, PhD, University of Colorado Boulder

Assistant Professors:

R. Dana Carpenter, PhD, Stanford University
Kannan N. Premnath, PhD, Purdue University
Christopher M. Yakacki, PhD, University of Colorado Boulder

Assistant Professor (Clinical Teaching Track):

Maryam Darbeheshti, PhD, University of Denver

Senior Instructor:

Joseph F. Cullen Jr., MS, University of Colorado

Professor Emeritus:

James Gerdeen, PhD, Stanford University

Associate Professor Emeritus:

B. Thomas Arnberg, MS, University of Colorado

[Mission Statement](#)

The mission of the Department of Mechanical Engineering is to contribute to the economic development of the state of Colorado and the Denver metropolitan area by providing high-quality bachelor's, master's (BS, MS and MEng) and PhD programs in mechanical engineering for a diverse group of working students.

[Program Objectives](#)

The programs offered by the Department of Mechanical Engineering of the University of Colorado Denver can be completed in the afternoon and evening hours to accommodate both working and traditional students. The department seeks to graduate a diverse population of students with bachelor's and master's degrees, enabling them to:

- be employed by a diverse group of industries, research laboratories and educational institutions
- pursue careers in traditional engineering, interdisciplinary areas, research and education
- pursue postgraduate education and advanced degrees

Graduate

The Department of Mechanical Engineering offers graduate courses, a [master of science \(MS\)](#) degree program and a [master of engineering \(MEng\)](#) program. In addition, the multidisciplinary [engineering and applied science doctor of philosophy](#) degree is available through the Department of Mechanical Engineering. The areas of research interest in which a student may undertake studies at the Denver campus include manufacturing processes, fluid mechanics, solid mechanics, bioengineering, energy thermodynamics and composite materials.

As a student in the MS or MEng program, you must meet with your graduate advisor before or during your first semester and design a sequence of elective courses that form a coherent program plan.

All applicants should apply online

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

Inquiries about graduate study in mechanical engineering should be addressed to:

CU Denver Department of Mechanical Engineering
Campus Box 112
P.O. Box 173364
Denver, CO 80217-3364

Applicants who are not citizens or permanent residents of the United States should make application through the Office of International Admissions, Campus Box 185, P.O. Box 173364, Denver, CO 80217- 3364. (See the [International Students](#) section of the catalog.) All applicants for admission must submit complete credentials as outlined in the instructions that accompany the application materials.

Concurrent Bachelor's/Master's Degrees

Students wishing to obtain a BS degree with a major in mechanical engineering and either the MS or the MEng degree in mechanical engineering may do so with up to 6 semester hours of 5000-level or above courses applying to both degrees. The 5000-level courses must meet the degree requirements for the graduate degree sought and must be suitable technical electives for the undergraduate degree. This option is open only for students seeking both degrees at CU Denver. Students must meet admission requirements to be accepted into the graduate program. Completion of two 5000-level courses does not guarantee admission into the graduate program. Please see an advisor for restrictions and guidelines.

Engineering and Applied Science PhD Program

The engineering and applied science doctor of philosophy program consists of studies in engineering and engineering-related disciplines. It is a multidisciplinary program in

keeping with the interdisciplinary nature of modern research. The degree is conferred by the College of Engineering and Applied Science. However, applicants to the degree program apply to and enter the program through one of four departments, called the host department, of the college. The applicant chooses his/her host department based on his/her intended primary concentration of study. The four departments of the college that serve as host departments are Civil Engineering, Computer Science and Engineering, Electrical Engineering and Mechanical Engineering. Each host department offers several concentrations. The secondary concentration can be chosen from any remaining department of the college, including Bioengineering. The secondary concentration may also be chosen from another college/school at CU Denver. The course work in the primary and secondary areas must consist of ten courses (30 semester hours). In addition to other courses, a student must take at least five courses in his/her primary area of concentration and at least three courses in a secondary area of concentration. Other courses may be recommended by the student's advisor. Research that spans across two or more of the five college departments is strongly encouraged and is a major strength of the program.

College of Liberal Arts and Sciences

CLAS Dean's Office

North Classroom, Suite 5014
Phone: 303-556-2557
Fax: 303-556-4861

Pamela Jansma, Dean, Professor of Geography and Environmental Sciences

Richard Allen, Associate Dean for Teaching, Learning and Curriculum; Associate Professor of Psychology

Laura Argys, Associate Dean for Research and Creative Activities; Professor of Economics

Sarah Fields, Acting Associate Dean for Student Success; Associate Professor of Communication

Marjorie Levine-Clark, Associate Dean for Diversity, Outreach and Initiatives; Associate Professor of History

John Wyckoff, Associate Dean for Faculty and Staff Affairs; Professor of Geography and Environmental Sciences

Academic Advice and Information

The College of Liberal Arts and Sciences partners with the Graduate School to assist with the administration of our graduate degrees. Graduate students in the college are expected to assume responsibility for planning their academic programs in accordance with Graduate School Rules, CLAS policies and program requirements. Graduate students must work with the Assistant Dean of the Graduate School in addition to their faculty

advisor upon matriculation into the college. The Assistant Dean of the Graduate School is responsible for advising graduate students of University and Graduate School policies and procedures and for certifying that degree requirements have been met for graduation purposes.

Graduate students should meet with a faculty advisor in their department as soon as they begin their degree program. The faculty advisor is responsible for advising students about coursework and degree requirements and for certifying that program requirements are complete at graduation. Students should consult with their faculty advisor at least once a year following admission to the program. While students are strongly encouraged to meet with their faculty advisor every semester, they *must* meet with their faculty advisor 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. This must be done before the campus census date and is considered an absolute deadline.

To learn more about admissions, transfer credits, readmission, changing degree programs, graduate courses, GPA requirements, residency requirements, academic probation, incomplete grades, thesis/project/dissertation procedures and defense, research protocol, comprehensive exams, application to graduate and candidacy to graduate, deadlines and time limits, please consult with your faculty advisor and refer to the [Graduate School Rules](#).

Graduate School Dean's Office

Lawrence Street Center, Suite 1251

Phone: 303-315-2183

Email: graduate.school@ucdenver.edu

David Engelke, Graduate School Dean

Inge Wefes, Graduate School Associate Dean

Jessica Halliday, Graduate School Assistant Dean/Graduate Coordinator

Kelly Santa-Maria, Graduate School Application Specialist for CLAS

The mission of the College of Liberal Arts and Sciences is to foster academic excellence, to create and impart knowledge critical to a modern society and a global economy, and to ensure the acquisition of skills essential for professional careers and graduate study. Our vision is to enact a new paradigm for a liberal arts education that retains the proven values of a broad education while imparting research and career-oriented skills throughout the curriculum.

The College of Liberal Arts and Sciences (CLAS) offers a variety of excellent graduate programs, ranging from the highly specialized PhD in Clinical Health Psychology to the broad interdisciplinary MA in Humanities or Social Sciences. CLAS faculty members are recognized as research leaders, dedicated mentors, and engaged scholars. Bringing real-world experience and academic expertise to our classrooms, CLAS faculty are dedicated to instilling in students a lifelong love of learning and inquiry, cutting-edge research

training, respect for free thinking and commitment to collaborative endeavors. Our graduate programs draw on our downtown location and make use of the city's many resources partnerships with Denver businesses and non-profit organizations. CLAS students have excellent opportunities to participate in first-class research in collaboration with faculty and the community.

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 critical 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.

Graduate Programs

Graduate degree programs offered by CLAS 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
Concentrations: archaeological studies; biological anthropology
- Communication
- Economics
- English
- Applied Geography and Geospatial Science
- History
Concentrations: European history; global history; public history; United States history
- Political Science
Concentrations: politics and public policy
- Sociology

- Spanish

Master of Humanities (MH)

Concentrations: philosophy and theory; visual studies

Master of Integrated Sciences (MIS)

Master of Science (MS)

- 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; society and environment; social justice; women's and gender studies

Doctor of Philosophy(PhD)

- Applied Mathematics
- Clinical Health Psychology
- Health and Behavioral Sciences
- Integrative and Systems Biology

Certificate Programs

The college offers graduate certificate programs that demonstrate proficiency in a specialized field of study. Certificates may cross traditional disciplinary boundaries and may be 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.

Graduate Certificates

- Applied Statistics (Mathematical and Statistical Sciences)
- Democracy and Social Movements (Political Science)
- Geographic Information Science (Geography/Environmental Sciences)
- Environmental Science Education (Geography/Environmental Sciences)
- Historic Preservation (History)
- Public, Nonprofit and Community Leadership (Political Science)
- Scientific Foundations of Technical Innovation (Physics)
- Strategic Communication (Communication)

- Sustainable Urban Agriculture (Geography/ Environmental Sciences)
- Teaching English Language Learners (English)
- Women's and Gender Studies (WGST Interdisciplinary Program)

Continuing and Professional Education (CPE)

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.

Anthropology

[Go to information for Anthropology.](#)

Programs

Master of Arts

- [Anthropology MA](#)

Chemistry

[Go to information for Chemistry.](#)

Programs

Bachelor of Science/Master of Science

- [Chemistry BS/MS](#)

Certificate

- [Biochemistry Certificate](#)

Master of Science

- [Chemistry MS](#)

Communication

[Go to information for Communication.](#)

Programs

Certificate

- [Strategic Communication Graduate Certificate](#)

Master of Arts

- [Communication MA](#)

Economics

[Go to information for Economics.](#)

Programs

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

[Go to information for English.](#)

Programs

Certificate

- [Teaching English Language Learners Graduate Certificate \(CTELL\)](#)

Master of Arts

- [English MA](#)

Geography and Environmental Sciences

[Go to information for Geography and Environmental Sciences.](#)

Programs

Certificate

- [Environmental Science Education Graduate Certificate](#)
- [Geographic Information Science Graduate Certificate](#)
- [Sustainable Urban Agriculture Graduate Certificate](#)

Master of Arts

- [Applied Geography & Geospatial Science MA](#)

Master of Science

- [Environmental Sciences MS](#)

Health and Behavioral Sciences

[Go to information for Health and Behavioral Sciences.](#)

Programs

Doctor of Philosophy

- [Health and Behavioral Sciences PhD](#)

Health Humanities

[Go to information for Health Humanities.](#)

Programs

Certificate

- [Health Humanities and Ethics Graduate Certificate](#)

History

[Go to information for History.](#)

Programs

Certificate

- [Historic Preservation Graduate Certificate](#)

Master of Arts

- [History MA](#)
- [Public History, MA in History](#)

Humanities, Master of

[Go to information for Humanities, Master of.](#)

Programs

Master of Humanities

- [Humanities MH](#)

Integrated Sciences, Master of

[Go to information for Integrated Sciences, Master of.](#)

Programs

Master of Science

- [Integrated Sciences MIS](#)

Integrative Biology

[Go to information for Integrative Biology.](#)

Programs

Doctor of Philosophy

- [Integrative and Systems Biology, PhD](#)

Master of Science

- [Biology MS](#)

Interdisciplinary Programs

[Go to information for Interdisciplinary Programs.](#)

Mathematical and Statistical Sciences

[Go to information for Mathematical and Statistical Sciences.](#)

Programs

Certificate

- [Applied Statistics Graduate Certificate](#)

Doctor of Philosophy

- [Applied Mathematics PhD](#)

Master of Science

- [Applied Mathematics MS](#)

Modern Languages

[Go to information for Modern Languages.](#)

Programs

Master of Arts

- [Spanish MA](#)

Physics

[Go to information for Physics.](#)

Programs

Certificate

- [Scientific Foundations of Technical Innovation Certificate](#)

Political Science

[Go to information for Political Science.](#)

Programs

Certificate

- [Democracy and Social Movements Graduate Certificate](#)
- [Public, Nonprofit and Community Leadership Graduate Certificate](#)

Master of Arts

- [New Directions, Political Science MA](#)
- [Political Science MA](#)
- [Political Science MA / Master of Business Administration \(MBA\) Dual Degree](#)

Psychology

[Go to information for Psychology.](#)

Programs

Doctor of Philosophy

- [Psychology, Clinical Health Psychology PhD](#)

Social Science, Master of

[Go to information for Social Science, Master of.](#)

Programs

Master of Social Science

- [Social Science MSS](#)

Sociology

[Go to information for Sociology.](#)

Programs

Master of Arts

- [Sociology MA](#)

Women's and Gender Studies

[Go to information for Women's and Gender Studies.](#)

Programs

Certificate

- [Women's and Gender Studies Graduate Certificate](#)

Anthropology

←Return to: [College of Liberal Arts and Sciences](#)

Chair: Christopher Beekman

Program Assistant: Connie Turner

Office: North Classroom Building 4002

Undergraduate Advisor: John Brett

Graduate Director: Tammy Stone

Telephone: 303-556-3554

Fax: 303-556-8501

Website: clas.ucdenver.edu/anthropology/

Faculty

Professors:

Stephen Koester, PhD, University of Colorado

Tammy Stone, PhD, Arizona State University

David Tracer, PhD, University of Michigan

Associate Professors:

Christopher Beekman, PhD, Vanderbilt University
John Brett, PhD, University of California at San Francisco and Berkeley
Sarah Horton, PhD, University of New Mexico
Charles Musiba, PhD, University of Chicago
Marty Otañez, PhD, University of California-Irvine

Assistant Professors:

Jamie Hodgkins, PhD, Arizona State University
Zaneta Thayer, PhD, Northwestern University

Instructor:

Tiffany Terneny, PhD, University of Texas-Austin

Adjunct Faculty:

Sharon Devine, PhD, University of Colorado
Jean Scandlyn, PhD, Columbia University
Sue Woods, PhD, University of Colorado

[Graduate Program](#)

► [Graduate School Rules](#) apply to this program

The unique intellectual challenge of anthropology is to integrate knowledge from many disciplines for a global understanding of cultural and biological diversity in the past and the present. Individual courses in cultural and biological anthropology and archeology cut across lines of the humanities and social and natural sciences. Because of this integrative perspective on the human condition-and the training provided in objectively assessing cultural patterning and social interaction-anthropology graduates have a strong and versatile base for careers in a variety of fields. Graduates of our program get jobs as professional archaeologists; work in international NGOs as researchers in the health sciences and public health, as college teachers and in international development; while others have been very competitive in prestigious PhD programs (e.g., Berkeley, Pennsylvania, McMasters, Oxford, Stanford).

[Specialties and Tracks](#)

CU Denver's Department of Anthropology provides an outstanding graduate education in anthropology, giving students a broad yet thorough grounding in the three major subfields of anthropology, as well as specialized instruction in one or more research orientations in which department faculty have substantial expertise. The graduate faculty in anthropology are particularly known for their research and publications in medical anthropology; microfinance; human growth and development; experimental economics; visual anthropology; social and cultural factors in HIV and hepatitis; ethnicity; political

economy; southwestern, Mexican and Neanderthal archeology; and urban and community anthropology. Across the specializations there is a strong emphasis on research design and methodology, providing students concrete job-related skills. Area studies emphases include Latin America, East Africa, and the US Southwest. Students also have opportunities to study abroad, to participate in one of several field schools, and to gain international research experience.

Topical Concentrations

- medical anthropology
- archaeological studies
- biological anthropology

Click [here](#) to learn about the **Anthropology MA Plans of Study**.

The graduate program in Anthropology is an active participant in the Western Interstate Commission for Higher Education's Western Regional Graduate Program (www.WICHE.edu). Students from WICHE states (Alaska, Arizona, California, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming) pay in-state tuition while maintaining residency in their home state. Just indicate in your application packet that you wish to take advantage of this program.

Application Process

Application is open to holders of a BA, BS or higher degree in any field. We welcome applications from individuals pursuing particular interests and careers, especially those related to one of the areas of concentration noted above. The departmental deadline for receipt of all application materials is **February 15** for admission the following fall.

Acceptance to the program is competitive and based on the application as a whole rather than preference in any one area:

- an undergraduate record of good quality (3.0 GPA or higher for all undergraduate studies)
- prior training in anthropology*
- GRE scores (verbal, analytic and quantitative)
- three letters of recommendation
- a statement of the applicant's goals, both in graduate school and in their career, after completing the degree
- One copy of transcripts from all undergraduate/graduate institutions attended

If you have no prior anthropology training, we encourage you to gain the necessary background as a nondegree student before applying to the graduate program. *Students may be admitted without prior anthropology training, but may be required to make up deficiencies without graduate credit during the course of their graduate study.

Financial Aid

The department offers limited tuition assistance, teaching assistantships and research assistantships for graduate students on a semester-by-semester basis. Appointment is competitive and is typically based on a student's academic credentials, GRE scores and preparation in anthropology. Contact the department for details. For information on grants, federal work-study programs, scholarships and loans, contact the CU Denver Financial Aid Office (website: www.ucdenver.edu/student-services/resources/CostsAndFinancing/FA/Pages/FinancialAid.aspx).

Chemistry

←Return to: [College of Liberal Arts and Sciences](#)

Chair: Haobin Wang

Office: Science Building, 3071E

Telephone: 303-556-5867

Fax: 303-556-4776

Website: clas.ucdenver.edu/chemistry/

Faculty

Professors:

Robert Damrauer, PhD, Massachusetts Institute of Technology

Doris Kimbrough, PhD, Cornell University

Haobin Wang, PhD, Wayne State University

Xiaotai Wang, PhD, University of Virginia

Associate Professors:

Hai Lin, PhD, University of Science and Technology of China

Scott Reed, PhD, University of Oregon

Assistant Professors:

Karen Knaus, PhD, Cleveland State University

Jung-Jae Lee, PhD, University of Notre Dame

Yong Liu, PhD, University of Michigan

Jefferson Knight, PhD, Yale University

Xiaojun Ren, PhD, Jilin University

Marino Resendiz, PhD, University of California, Los Angeles

Liliya Vugmeyster, PhD, State University of New York at Stony Brook

Clinical Associate Professors:

Margaret Bruehl, PhD, Northwestern University

Clinical Assistant Professors:

Marta Maron, PhD, University of Colorado

Instructors:

Priscilla Burrow Crocker, PhD, University of Colorado

Vanessa Fishback, PhD, University of Northern Colorado

Kyoung Kim, PhD, University of Notre Dame

Emeritus Faculty:

Larry G. Anderson, PhD, Indiana University

Douglas Dykes, PhD, Case Western Reserve University

Why study chemistry? A practical reason is that our highly technical society faces many problems that cannot be solved without an understanding of the science of chemistry and its methods of solving problems. A more intangible reason is that chemistry is central to a variety of other disciplines and that many problems ultimately will have chemical solutions.

At the graduate level, an MS degree program is offered. Students with MS degrees have job opportunities in research and technical laboratory services. In addition, flexible programs can be designed to combine chemical knowledge and skills with other interests of the MS-level student (e.g., biology or environmental science).

Graduate Program

The MS degree offered at CU Denver is a broad-based chemistry degree that allows students to take courses and do research in the following basic fields: analytical, biochemistry, inorganic, organic, physical or environmental chemistry.

The MS program is available to both full- and part-time students. The chemistry faculty strive to ensure that students receive excellent advising and supervision of work. Students enrolled in the program have an opportunity to be appointed as laboratory teaching assistants. Research activities on the part of the chemistry faculty provide opportunities for graduate students to obtain research assistantships.

Click [here](#) to learn about the **Chemistry MS** program.

Click [here](#) to learn about the **Chemistry BS/MS** program.

Certificate in Biochemistry

Students enrolled in any graduate program at CU Denver are eligible to earn a Certificate in Biochemistry.

Click [here](#) to learn about the Certificate in Biochemistry

Communication

←Return to: [College of Liberal Arts and Sciences](#)

Chair: Lisa Keränen

Graduate Director: Hamilton Bean

Program Assistant: Michelle Médal

Undergraduate Advisors: E. J. Yoder and Yvette Bueno-Olson

Internship Director: Kristy Frie

Office: Student Commons Building, 1201 Larimer Street, 3rd Floor, Room 3014

Telephone: 303-315-1919

Faculty

Professors:

Brenda J. Allen, PhD, Howard University

Sonja K. Foss, PhD, Northwestern University

Stephen J. Hartnett, PhD, University of California at San Diego

Associate Professors:

Hamilton Bean PhD, University of Colorado at Boulder
Larry Erbert, PhD, University of Iowa
Sarah Fields, PhD, University of Iowa
Lisa Keränen, PhD, University of Pittsburgh
James F. Stratman, PhD, Carnegie-Mellon University

Assistant Professors:

Amy Hasinoff, PhD, University of Illinois at Urbana-Champaign

Assistant Professors Clinical Track:

Patrick Shaou-Whea Dodge, PhD, University of Denver
Gordana Lazic, PhD, University of Denver

Senior Instructors:

e.j. Yoder, PhD, University of Denver

Instructors:

Yvette Bueno-Olson, PhD, University of Miami
Ian Dawe, MA, Colorado State University
Kristy Frie, MA, Regis University
Dongjing Kang, PhD, Ohio University
Kirsten Lindholm, MA, University of Colorado Denver
Diann Logan, MA, University of Colorado
Kathleen Pounders, MA, University of Colorado
Jared Woolly, MA, University of Colorado Denver

The Department of Communication at the University of Colorado Denver enriches understanding of the roles of communication in everyday life, organizational settings and public affairs. While the roots of the study of communication trace back to the ancient arts of philosophy, rhetoric and aesthetics, its contemporary practices speak to the opportunities and dilemmas of participating in a globalized, mediated and multicultural society. A major in communication develops knowledge and skills that are required for many different fields, including advertising, business, international relations, education, public service, government and politics, health care and public relations. Because college graduates are expected to change careers approximately seven times over the course of their lives, and because employers across a wide variety of fields seek applicants with strong oral and written communication skills, a degree in communication is a versatile and timely choice.

The department's classes are organized in seven pathways, including community service and public affairs, health communication, legal communication, media studies, strategic communication, political communication and government and critical toolbox courses.

Across these pathways, students are encouraged to merge theoretical studies with practical applications, including in-service learning courses, travel study, internships, social justice projects and other experiential modes of learning. The Department of Communication therefore provides students the skills, knowledge and opportunities to use communication to help create a more humane and civil world.

Graduate Program

Click [here](#) to learn about the **Master of Arts in Communication**.

Grade Requirements

Students must maintain a GPA of 3.0 or higher across all courses applied to a graduate degree or to a graduate certificate.

Course Transfer Policy

A maximum of 9 semester hours of relevant graduate course work may be transferred from another university. Students cannot receive credit for transferred courses in which less than a *B* grade was earned. Course work transferred from another university must be approved by the director of the MA program and must not have been used for another graduate degree.

Time Limits for Completion of Degree

Students have seven years from the date of the beginning of their course work to complete all requirements for a master's degree in communication.

Application Procedures for U.S. Citizens

Students must submit the following materials to apply for admission to the MA program:

- letter of application explaining career plans and reasons for interest in the degree
- online graduate admission application
- three letters of recommendation, preferably from university faculty (those writing the recommendations must use the request for recommendation form and their own letterhead stationery)
- two official transcripts from every college or university attended
- strongly preferred 3.25 undergraduate GPA
- resume or *vita*
- academic writing sample (showing ability to make and sustain an argumentative analysis)

- GRE scores (we seek above 150 verbal GRE scores)
- \$50 application fee (nonrefundable)
- international students need TOEFL scores in addition to GRE score

The deadline for application for the fall semester is February 1, for spring semester October 1. All application materials should be sent to:

Graduate School
University of Colorado Denver
Campus Box 163
1380 Lawrence Street, Suite 1250
P. O. Box 173364
Denver, CO 80217-3364

Application Procedures for International Students

Students who are not U.S. citizens should begin the process of application to the MA program in communication by contacting the Office of International Affairs (website: www.ucdenver.edu/academics/InternationalPrograms/OIA/admissions/Pages/default.aspx) at CU Denver. This office will assist students in compiling their application materials, which then are submitted to the communication department. See the [International Students](#) chapter for further information.

Graduate Certificate

Click [here](#) to learn about the **Graduate Certificate in Public Relations**.

Grade and Residency Requirements for Certificates

A grade of *B* or better must be earned in each course completed as part of the certificate (*B-* is not acceptable). All semester hours for a certificate must be earned at CU Denver.

Economics

← Return to: [College of Liberal Arts and Sciences](#)

Chair: Buhong Zheng
Program Assistant: Christine Lukvec
Office: Lawrence Street Center, 460
Telephone: 303-315-2030
Fax: 303-315-2048
Website: econ.ucdenver.edu/home/

Faculty

Professors:

Laura M. Argys, PhD, University of Colorado
Brian J. Duncan, PhD, University of California at Santa Barbara
Steven G. Medema, PhD, Michigan State University
Daniel I. Rees, PhD, Cornell University
W. James Smith, PhD, University of Colorado
Buhong Zheng, PhD, West Virginia University

Associate Professors:

Steven R. Beckman, PhD, University of California Davis
Hani Mansour, PhD, University of California at Santa Barbara

Assistant Professors:

Ryan P. Brown, PhD, Duke University
Andrew I. Friedson, PhD, Syracuse University
Andrea Velasquez, PhD, Duke University

Instructors:

Alpna Bhatia, PhD, University of Colorado
Enoch Cheng, PhD, University of California-Los Angeles
Nicholas Golding, MA, Ohio State University
Kyle J. Hurst, MA, Baylor University
George K. Quansah, MA, University of Colorado
Russell S. Kellogg, MA, University of Colorado

Economics is the science of decision making. The rigorous and general approach that characterizes economics lends itself to a remarkably wide field of practical application. Economists are noted for major contributions in a number of fields including government policy, taxation, law, regulation, political economy, international trade and finance, international and U.S. development, marketing, environmental studies, medical policy, portfolio management and banking. The broad and rigorous training of economics majors accounts for their significant demand in virtually every industry and government agency. Economics provides excellent preparation for advanced graduate study as well. Recent studies indicate that economics is a preferred degree for prestigious MBA programs and law schools.

Graduate Program

The MA program in economics at CU Denver is directed toward two groups: (1) those who look on the MA as a key to career development in business or government service, and (2) those who desire to go on to pursue the PhD in economics or related fields.

The strong quantitative emphasis of the department's MA program is ideally suited for the pursuit of both these goals. Students are steeped in econometric theory and its applications from the beginning of the program, receiving broad exposure both to the tools of econometric analysis and the application of these tools to a wide range of economic phenomena. The applications involve extensive exposure to the professional literature in various applied fields and a research seminar in which each student will undertake a sophisticated applied research project under faculty supervision.

Students are allowed a great deal of flexibility in choosing their elective courses. Possibilities include advanced quantitative courses in economics, advanced field courses in economics (e.g., money and banking, international economics), business courses and advanced mathematics courses (which are particularly useful for those who wish to pursue the PhD in economics). All of this is intended to give students the opportunity to complement their extensive quantitative training with additional knowledge and skills that will best enhance their prospects upon graduation.

Click [here](#) to learn about the **Master of Arts in Economics**.

Click [here](#) to learn about the **MA Economics/MS Applied Mathematics Dual Degree**.

Click [here](#) to learn about the **MA Economics/MS Finance Dual Degree**.

Click [here](#) to learn about the **MA Economics/MPA Public Administration Dual Degree**.

English

←Return to: [College of Liberal Arts and Sciences](#)

Chair: Michelle Comstock

Associate Chair: Nancy Ciccone

Program Assistant: Francine Olivas-Zarate

Program Assistant: Elaine Beemer

Office: 1015 9th Street Park

Telephone: 303-556-2584

Fax: 303-556-8304

Website: clas.ucdenver.edu/english/

Faculty

Professors:

Jeffrey Franklin, PhD, University of Florida
Bradford K. Mudge, PhD, University of Texas, Austin

Associate Professors:

Joanne Addison, PhD, Purdue University
Pompa Banerjee, PhD, University of Massachusetts
Brian Barker, PhD, University of Houston
Teague Bohlen, MFA, Arizona State University
Nancy Ciccone, PhD, University of California, Berkeley
Michelle Comstock, PhD, Purdue University
Colleen Donnelly, PhD, University of Washington
Philip Joseph, PhD, State University of New York, Buffalo
Wayne Miller, MFA, University of Houston
Gillian Silverman, PhD, Duke University
Amy Vidali, PhD, University of Washington
Catherine A. Wiley, PhD, University of Wisconsin, Madison
Cynthia Wong, PhD, University of Wisconsin, Milwaukee
Ian Ying, PhD, University of Arizona

Assistant Professors:

Nicole Beer, PhD, University of Missouri-Columbia
James Fiumara, PhD, University of Pennsylvania
Sarah Hagelin, PhD, University of Virginia
Rodney Herring, PhD, University of Texas, Austin
Joanna Luloff, MFA, Emerson College; PhD, University of Missouri
John Tinnell, PhD, University of Florida, Gainesville

The English Studies graduate program provides a strong foundation in primary knowledge areas, including history of the English language, the major genres and the theory of genre, approaches to literacy, and the impact of technology on reading and writing. The program invites MA candidates to build on this foundation by developing an expertise in teaching, and by expanding their content knowledge with courses in rhetoric, literature, film, and applied linguistics.

Graduate Program

Click [here](#) to learn about the **MA in English**.

Certificates

The English department also offers a graduate certificate in teaching English to speakers of other languages.

Click [here](#) to learn about **Teaching English Language Learners Graduate Certificate (CTELL)**.

Additional Information

For additional information on majors, options, minors and certificates call the Department of English office at 303-556-2584.

Geography and Environmental Sciences

←Return to: [College of Liberal Arts and Sciences](#)

Chair: Deborah S.K. Thomas

Program Assistant: Sue Eddleman

Office: North Classroom, 3014

Telephone: 303-556-2276

Fax: 303-556-6197

Website: clas.ucdenver.edu/ges/

Faculty

Professors:

Anne Chin, PhD, Arizona State University

Pamela Jansma, PhD, Northwestern University (CLAS Dean)

Professors Emeritus:

Wesley E. LeMasurier, PhD, Stanford University

Martin Lockley, PhD, University of Birmingham, England

Associate Professors:

Casey Allen, PhD, Arizona State University

Peter Anthamatten, PhD, University of Minnesota

Frederick B. Chambers, PhD, Arizona State University

Rafael Moreno-Sanchez, PhD, Colorado State University

Brian Page, PhD, University of California, Berkeley

Gregory Simon, PhD, University of Washington
Deborah S.K. Thomas, PhD, University of South Carolina
Bryan S. Wee, PhD, Purdue University
John W. Wyckoff, PhD, University of Utah

Associate Professors- Clinical Teaching Track:

Rudi Hartmann, PhD, Technical University of Munich

Assistant Professors:

Christy Briles, PhD, University of Oregon

Senior Instructors:

Amanda Weaver, PhD, University of Denver

Instructors:

Matthew Cross, MA, University of Nebraska, Lincoln

Lecturers:

Richard DeGrandchamp
Michael Hinke

Geography is a science that focuses on the spatial analysis of human/physical patterns and processes. Geographers attempt to identify the factors affecting the distribution of people and their activities on the surface of the earth and to provide meaningful solutions to problems faced by societies. This discipline is an ideal major for the liberal arts student, providing exposure to the concepts and techniques utilized in investigating the physical sciences, environmental and sustainability issues, socioeconomic problems and planning policies. In the United States and around the world, balancing the preservation of the natural environment with the imperatives of economic development along with concerns for social well-being has led to a growing demand for broadly trained individuals who can identify and understand pressing social and environmental issues, collect and analyze relevant data, and develop and implement innovative solutions.

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 coursework 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.

Graduate Program

Click [here](#) to learn about the **Master of Science in Environmental Sciences**.

Click [here](#) to learn about the **Master of Arts in Applied Geography & Geospatial Science**.

Certificates

Click [here](#) to learn about the **Sustainable Urban Agriculture Graduate Certificate**.

Click [here](#) to learn about the **Geographic Information Science Graduate Certificate**.

Click [here](#) to learn about the **Environmental Science Education Graduate Certificate**.

Health and Behavioral Sciences

← Return to: [College of Liberal Arts and Sciences](#)

Director: Karen Spencer

Program Assistant: Abby Fitch

Mailing Address: Program in Health and Behavioral Sciences, Campus Box 188, P.O. Box 173364, Denver, CO 80217-3364

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Telephone: 303-556-4300

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Website: clas.ucdenver.edu/hbsc/

Faculty

Professors:

Stephen Koester, PhD, University of Colorado
David P. Tracer, PhD, University of Michigan

Associate Professors:

jimi adams, PhD Ohio State University
Karen Lutfey, PhD, Indiana University
Ronica Rooks, PhD, University of Maryland College Park
Sara Yeatman, PhD, University of Texas Austin
Patrick Krueger, PhD, University of Colorado

Assistant Professors:

Meng Li, PhD, Rutgers University

Professors Emerita:

Debbi Main, PhD, University of Colorado

Research and Clinical Faculty:

Sharon Devine, PhD, University of Colorado

Jean Scandlyn, PhD, Columbia University

The mission of the health and behavioral sciences (HBSC) program is to apply social science theory and innovative research methods to critically address emerging issues in health. The program trains students to confront issues affecting the health of communities and populations by focusing on social determinants of health and diseases. These determinants can be more influential on population health than the health care system.

The program's overarching framework integrates social, cultural and biomedical perspectives to understand the underpinnings of health and the conditions essential for its creation and maintenance. Students and faculty conduct interdisciplinary research on topics including emerging diseases, maternal/child health, substance abuse, health disparities and global health. Graduates are innovative researchers, effective educators and leaders directly engaged in the practice of public health.

Public health is working to protect the environment, identifying sources of illness in population groups, controlling disease outbreaks, evaluating the economic impacts of changing demographics, developing interventions to promote healthy behavior, and producing health policy legislation. Public health draws from a broad array of disciplines, such as the social and behavioral sciences, medicine, nursing, pharmacy, physical therapy, business, economics, statistics, epidemiology, law and biology, and each provides unique insights for the diverse set of activities involved in public health practice.

PhD Program in Health and Behavioral Sciences

The doctor of philosophy degree in health and behavioral sciences is rooted in the realization that our ability as a global society to overcome some of the most significant and intractable public health problems today rests on the willingness of biomedical and social science researchers to innovate across traditional disciplinary boundaries. Students are trained in theory from multiple disciplines and in both quantitative and qualitative research methods.

Although a master's degree is not provided by the health and behavioral sciences department, two relevant master's programs currently exist at CU Denver, as described in the PhD program requirements for admission.

A student's particular research focus constitutes a key part of his or her doctoral program. A range of possible foci exists, given the particular student's interest and faculty expertise. Examples of HBSC research foci include:

- *Social determinants of health.* Such research interests include studies on the health-related influences of socioeconomic position, social and economic inequality, discrimination, social networks and support, social capital, work conditions and psychological states including stress.
- *Community health.* This area of research involves community health assessment; program design and evaluation; translation of evidence-based interventions to diverse populations and communities; participatory research and community mobilization; policy analysis and advocacy for health-related problems.
- *Biosocial ecology.* Within this area are studies of the interplay of biological (including physiological, genetic or others of the biomedical health sciences), social, cultural and environmental characteristics influencing maternal/infant health, exercise performance or susceptibility to disease.
- *Global health* topics include social, cultural and biomedical factors influencing transmission of disease and health disparities on an international (as well as national) scale.

Recent student research exemplifying such foci includes:

- social factors affecting newly emerging diseases in the American Southwest
- factors that contribute to positive perceived health in the older-aged population
- ethnic group differences in weight gain and cardiovascular disease
- the impact of natural hazards and risk management strategies on health among pastoral herders in Mongolia
- adolescent sexual risk behaviors in the context of social networks and cultural norms
- disease incidence patterns and environmental contamination in north Casper, Wyoming

Graduates of the HBSC program acquire skills that situate them for academic careers and leadership roles in public health. Depending upon a student's concentration, the successful graduate will gain expertise in research design and methods; social, cultural and biobehavioral determinants of health and disease; the structure and organization of

health care systems; the contribution of individual, social and cultural factors for deciding health behaviors; and how guided change in health care systems may enhance quality, efficacy and access. The significance of these skills in addressing current complex health issues ensures that graduates will be in demand in a number of employment sectors ranging from community and public health organizations, to academic institutions, to nonprofit research organizations and to private health care settings.

Click [here](#) to learn about the **Health and Behavioral Sciences PhD** program requirements.

Health Humanities

←Return to: [College of Liberal Arts and Sciences](#)

Program Director: Dr. Tess Jones

Telephone: 303-724-3995

E-mail: therese.jones@ucdenver.edu

Location: Center for Bioethics and Humanities, Anschutz Medical Campus

Associated Faculty

Mark Bauer, Philosophy

Matthew Wynia, Director for Bioethics and Humanities

Health Humanities offers an interdisciplinary graduate certificate in Health Humanities and Ethics. This 15-credit hour graduate certificate is designed for health professions students, graduate students, professionals, and community members as an accessible and enriching study of humanities and ethics as applied to health and healthcare. It will provide interdisciplinary and interprofessional approaches and applications including foundational courses in health humanities and healthcare ethics; health communications and rhetoric of medicine and health; history, literature and the visual arts as they relate to healthcare; and sociology and anthropology as related to healthcare and the life cycle. It will also provide resources for those interested in service projects in healthcare, service on institutional review boards and hospital ethics committees, and further graduate study. This certificate is unique in bringing together the health professions and liberal arts within a single, integrated program.

History

←Return to: [College of Liberal Arts and Sciences](#)

Chair: Kariann Yokota

Program Assistant: Tabitha Fitzpatrick

Graduate Advisor: Ryan Crewe

Office: Academic Building One; 1201 Larimer Street, Room 3102, Denver, CO 80204

Telephone: 303-315-1776

Fax: 303-315-1780

Website: clas.ucdenver.edu/history/

Faculty

Professors:

Pamela W. Laird, PhD, Boston University

Thomas J. Noel, PhD, University of Colorado Boulder

Associate Professors:

Gabriel Finkelstein, PhD, Princeton University

Marjorie Levine-Clark, PhD, University of Iowa

Carl E. Pletsch, PhD, University of Chicago

Kariann A. Yokota, PhD, Yale University

Assistant Professors:

Christopher Agee, PhD, University of California, Berkeley

Ryan Crewe, PhD, Yale University

Xiaojia Hou, PhD, Cornell University

Dale Stahl, PhD, Columbia University

William E. Wagner, PhD, University of California, Berkeley

Senior Instructors:

James E. Fell, PhD, University of Colorado Boulder

Richard D. Smith, PhD, University of Colorado Boulder

Instructors:

Kelly Palmer, PhD, Michigan State University

Christine Sundberg, MA, University of Colorado Denver

Assistant Professors Clinical Teaching Track:

Rebecca Hunt, PhD, University of Colorado Boulder

John G. Whitesides, PhD, University of California, Santa Barbara

Emeritus Professors:

Frederick S. Allen, PhD, Harvard University
Mary S. Conroy, PhD, Indiana University
Mark S. Foster, PhD, University of Southern California
James B. Whiteside, PhD, University of Colorado
James B. Wolf, PhD, University of California, Los Angeles

Introduction

The special responsibility of historical studies is understanding the past. History courses integrate many branches of knowledge, cutting across the lines of the social sciences and the humanities, and even the natural sciences. Identifying forces of stability and processes of change, history students develop their research, writing and analytical skills, which serve them well beyond their university years.

Graduate Program

Click [here](#) to learn about the **requirements for the MA in History**.

Click [here](#) for information about the **Public History MA Major** program.

Humanities, Master of

←Return to: [College of Liberal Arts and Sciences](#)

Director: Margaret L. Woodhull, PhD
Program Assistant: Angela Beale
Office: Student Commons 3203
Telephone: 303-315-3565
Fax: 303-315-3569
E-mail: masterhs@ucdenver.edu
Website: clas.ucdenver.edu/ict/index.html

Faculty

Associate Professor:
Omar Swartz, PhD, Purdue University, JD, Duke University

Senior Instructors:
Margaret L. Woodhull, PhD, University of Texas, Austin

Instructors:
Jordan Hill, PhD, Virginia Tech

The Master of Humanities degree program offers graduate interdisciplinary studies designed for recent university graduates or those who have graduated less recently and are now seeking intellectual enrichment, career change or preparation for a PhD or professional school. Some students are teachers or other professionals seeking additional training to expand their expertise. Many enroll in the program for the sheer satisfaction of intellectual enrichment. It is ideal for students whose professional and personal obligations require flexibility and accessibility. Whether they are part-time or full-time students, students are able to pursue their interests across disciplinary boundaries and enroll in courses from a number of departments. Students who pursue the Master of Humanities will take courses from disciplines traditionally included in the category of liberal arts, such as literature, philosophy, history, communication, fine arts, art history, theatre and music. But they may also include appropriate coursework from the social sciences or other areas. Each student's program is supervised by an MH faculty advisor.

Click [here](#) to learn about the **Master of Humanities requirements**.

Integrated Sciences, Master of

←Return to: [College of Liberal Arts and Sciences](#)

Program Director: Martin E. Huber

Office: North Classroom, 3107C

Telephone: 303-556-3561

Fax: 303-352-3872

E-mail: martin.huber@ucdenver.edu

Website: clas.ucdenver.edu/mis/

Program Description

Students in this program have the opportunity to take courses from a variety of areas in mathematics, the natural and physical sciences (biology, chemistry, environmental sciences, geology, and physics), and computer science in a program designed for professional growth in their area of interest. These areas are further explored through a required project or thesis that includes focused independent research on a topic that integrates two or three of the disciplines mentioned above.

The length of time it takes to complete the degree is determined by the student's own schedule flexibility; many finish within two years of full-time work. The program requires completion within seven years. Courses are offered during a wide range of times, and many MIS students complete their curriculum while working full time.

Requirements for Admission

Admission into the MIS program is competitively based. Minimum requirements for an application to be considered are:

- the graduate application form for the University of Colorado Denver, including all application fees
- a statement of purpose specifying why the applicant wishes to be admitted to the program, the applicant's primary area of interest, and his or her career goals
- three letters of recommendation from individuals who can speak to the applicant's academic qualifications, of which at least two should be from academic sources
- transcripts from all institutions of higher learning attended by the applicant
- a bachelor's degree from an accredited college or university
- a minimum cumulative undergraduate GPA of 3.0 on a 4.0 scale; however, applicants with an undergraduate GPA below 3.0 may be considered if they have taken the Graduate Record Examination (GRE) and if the scores are forwarded to the program office
- 40 semester hours of undergraduate courses in biology, chemistry, computer science, environmental sciences, geology, mathematics, and/or physics

Possessing the minimum requirements will guarantee that the application is considered. It does not, however, guarantee admission. The admissions committee will select students competitively to create a high-quality and balanced cohort of participants entering the program each year.

Application Deadline

Students are admitted for the spring and fall semesters. The deadline for a complete application is April 15 for fall admission and October 15 for spring admission.

Click [here](#) to learn about the **Integrated Sciences MIS** degree requirements.

Integrative Biology

← Return to: [College of Liberal Arts and Sciences](#)

Chair: John G. Swallow

Associate Chair: Diana F. Tomback

Program Assistant: Barbara Schmidt, Barbara McClure

Administrative Assistant: Jacki Craig

Undergraduate BS Program Director: Kimberly F. Regier

Graduate Program Director: Michael Wunder

Graduate Program Coordinator: Christine Hoff

Health Careers Advising: Charles A. Ferguson, Kent Nofsinger, Trishia Vasquez,

Denise Leberer

BA/BS-MD Program Coordinator: Trishia Vasquez

Lab Coordinator: James Salmen

Office: Science, 2071

Telephone: 303-556-8440

Fax: 303-556-4352

Website: clas.ucdenver.edu/biology/

Faculty

Professors:

Roderick Nairn, PhD, University of London

Charles A. Ferguson, PhD, University of Colorado Boulder

Bradley J. Stith, PhD, Washington State University

John G. Swallow PhD, University of Wisconsin, Madison

Diana F. Tomback, PhD, University of California, Santa Barbara

Associate Professors:

Leo P. Bruederle, PhD, Rutgers, the State University of New Jersey

Greg Cronin, PhD, University of North Carolina at Chapel Hill

Laurel Hartley, PhD, Colorado State University

Michael J. Greene, PhD, Oregon State University

Timberley M. Roane, PhD, University of Arizona

Michael Wunder, PhD, Colorado State University

Assistant Professors:

Amanda Charlesworth, PhD, University College, London

Raibatak Das, PhD, Cornell University

Aaron M. Johnson, PhD, Arizona State University

Christopher S. Miller, PhD, University of California Los Angeles

Annika Mosier, PhD, Stanford University

Christopher J. Phiel, PhD, Thomas Jefferson University

Alan Vajda, PhD, University of Colorado Boulder

Senior Instructors:

Hannah Anchordoquy, PhD, University of Colorado

Tod Duncan, PhD, University of College London

Lisa Johansen, PhD, University of Alabama at Birmingham

Cheri A. Jones, PhD, University of Florida

David Knochel, PhD, University of Colorado Boulder

Kent Nofsinger, MD, University of Kansas School of Medicine
Kimberly F. Regier, EdD, University of Colorado Denver

Emeritus Faculty:

Gerald Audesirk, PhD, California Institute of Technology
Teresa E. Audesirk, PhD, University of Southern California
Linda K. Dixon, PhD, University of Illinois
John H. Freed PhD, Stanford University
Georgia E. Lesh-Laurie, PhD, Case Western Reserve University

Graduate Program

MS in Biology

The MS in Biology program offers students the opportunity to receive advanced training and research experience in an area of specialization of one of our nationally and internationally recognized faculty members. The master's program is designed to prepare graduate students for careers in research and teaching; for employment in business, industry and government; for existing career advancement; and for continuing post-baccalaureate work in PhD and professional programs. Students in the program specialize in fields ranging from cell and molecular biology to ecology and evolution.

The master's program is a research-based program. Applicants to the 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 (clas.ucdenver.edu/biology/). Students must contact prospective faculty advisors to determine if openings are available within the faculty member's research group.

Click [here](#) to learn about the **Biology MS** requirements.

PhD in Integrative and Systems Biology

The PhD program in Integrative and Systems Biology at the University of Colorado Denver is a multidisciplinary, dual campus program that offers students opportunities to address complex questions in biology using computational, laboratory and field approaches. The more than 40 program faculty members allow students to participate on a diversity of projects at all levels of biological organization, ranging from ecology and environmental microbiology to biochemistry, developmental biology and neuroscience. Depending on the track an incoming student chooses, the approach will either be to explore the problem at multiple levels of biological organization (integrative biology) or to explore the multi-component nature of a biological system (systems biology).

The PhD program is research-based. Applicants to the program must have a declared area of specialization that aligns with the research focus of a program graduate faculty member. Faculty expertise can be found under graduate faculty profiles on the

Department of Integrative Biology website (clas.ucdenver.edu/biology/). Students must contact prospective faculty advisors to determine if openings are available within the faculty member's research group.

Click [here](#) to learn about the **Integrative and Systems Biology PhD** requirements.

Interdisciplinary Programs

←Return to: [College of Liberal Arts and Sciences](#)

Interdisciplinary programs encourage students to synthesize the theories, methods and analytical perspectives of diverse disciplines to bring new ways of understanding to particular themes or problems. Interdisciplinary studies foster research and teaching collaboration among faculty and students, who cross traditional academic specialties. Interdisciplinary programs also place a high value on reaching beyond the university into our local, national and global communities, providing students with real-world experiences through internships and experiential learning.

The college also has several established interdisciplinary programs leading to graduate degrees. A brief description of each program follows, with a link to its respective program section.

Graduate Programs

- The [MS IN ENVIRONMENTAL SCIENCES](#) combines environmental courses from the social sciences, physical sciences, engineering, humanities and statistics. A graduate certificate is also available.
- [PhD IN HEALTH AND BEHAVIORAL SCIENCES](#) students integrate social, cultural and biomedical perspectives to understand the underpinnings of health and the conditions essential for its creation and maintenance.
- The [MASTER OF INTEGRATED SCIENCES \(MIS\)](#) degree is designed to offer students a flexible program that combines courses in mathematics, the natural and physical sciences(biology, chemistry, geology, physics) and computer science. The MIS fosters professional growth targeted to students' particular interests, which are further developed through a required project or thesis that includes independent research.
- The [MASTER OF HUMANITIES \(MH\)](#) / [MASTER OF SOCIAL SCIENCE \(MSS\)](#) programs welcome students whose interests are diverse and who want to look at ideas in varied modes. Both the MH and the MSS programs offer students the opportunity to take courses from multiple disciplines and craft a study plan that bridges the traditional boundaries of a university's departments. Through this interdisciplinary curriculum,

students learn to think innovatively with critical and analytical skills that prepare them for a rapidly changing world.

- The [GRADUATE CERTIFICATE IN WOMEN'S AND GENDER STUDIES](#) provides CU Denver students and the public with specialized knowledge related to women's and gender concerns. It is available to any qualified graduate student or non-degree seeking, post-BA student.

Mathematical and Statistical Sciences

←Return to: [College of Liberal Arts and Sciences](#)

Chair: Michael Jacobson (interim)

Associate Chair: Stephen Billups

Program Assistant: Maria Rase

Administrative Assistant: Susan Rivera

Office: Student Commons Building, 4th Floor

Telephone: 303-315-1700

Fax: 303-315-1704

Website: www.math.ucdenver.edu

Department Email: MathStaff@ucdenver.edu

Please click on any of the following to go right to that information:

- [Centers and Clinics](#)
- [Graduate Program](#)

Faculty

Professors:

Michael S. Jacobson, PhD, Emory University

Julien Langou, PhD, INSA, Toulouse, France

Weldon A. Lodwick, PhD, Oregon State University

Jan Mandel, PhD (equivalent), Charles University (Czechoslovakia)

Associate Professors:

Stephen Billups, PhD, University of Wisconsin-Madison

Michael Ferrara, PhD, Emory University

Anatolii Puhalskii, PhD, Moscow Institute of Physics and Technology

Stephanie A. Santorico, PhD, North Carolina State University

Burton Simon, PhD, University of Michigan, Ann Arbor

Diana White, PhD, University of Nebraska

Assistant Professors:

Troy Butler PhD, Colorado State University
Alexander Engau, PhD, Clemson University
Joshua French, PhD, Colorado State University
Audrey Hendricks, PhD, Boston University
Florian Pfender, PhD, Emory University

Assistant Professors Clinical Teaching Track:

RaKissa Cribari, EdD, University of Northern Colorado

Instructors:

Meaghan Cheeke, MA, University of Northern Colorado
Michael Kawai, MS, University of Colorado
Lance Lana, MS, University of Colorado
Gary Olson, MS, University of Colorado

International College of Beijing Faculty:

Robert Rostermundt, PhD, University of Colorado Denver
Jer-chin (Luke) Chuang, PhD, Rice University

Research Faculty:

Loren Cobb, PhD, Cornell University
Sogol Jahanbekam, PhD, University of Illinois Urbana-Champaign

Visiting Faculty:

Henricus Bouwmeester, PhD, University of Colorado Denver
Michael McCourt, PhD, Cornell University

Emeritus Faculty:

William Briggs, PhD, Harvard University
William E. Cherowitzo, PhD, Columbia University
Kathryn L. Fraughnaugh, PhD, University of Houston
Harvey J. Greenberg, PhD, Johns Hopkins University
Sylvia Lu, PhD, Pennsylvania State University
J. Richard Lundgren, PhD, Ohio State University
Roland Sweet, PhD, Purdue University

The Department of Mathematical & Statistical Sciences at the University of Colorado Denver offers applied mathematics degrees and certificate programs through coursework,

research and collaboration. Traditional courses such as calculus, linear algebra, probability, statistics and discrete mathematics are offered regularly by the department. In addition, contemporary subjects such as continuous, probabilistic, optimization and discrete modeling; supercomputing; numerical analysis; optimization; and operations research are also well represented by course offerings and faculty interests. In all of its activities, the department embodies the outlook that mathematics is a powerful tool that can be used to solve problems of immediate and practical importance.

Apart from the specialized mathematical skills acquired through course work, the degree also provides general skills that are valued by many employers. These skills include problem solving, critical thinking, analysis, facility with data, the ability to process quantitative information, and perhaps most important of all, the ability to learn new skills and concepts quickly.

Center for Computational & Mathematical Biology

Director: Weldon Lodwick

Telephone: 303-315-1733

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

The Center for Computational Biology (CCMB) is a multidisciplinary center focused on computational and mathematical biology research and education.

Center for Computational Mathematics

Director: Troy Butler

Telephone: 303-315-1734

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

The Center for Computational Mathematics is composed of faculty members who have an interest in computational mathematics, the study of solving mathematical problems with computers. The center resides in the Department of Mathematical and Statistical Sciences and includes faculty members from various other departments. The primary goal of the center is to foster research in computational mathematics and to maintain a strong educational program at all levels. It has extensive ties with industry along the Front Range and with government laboratories throughout the nation. It offers students an excellent opportunity to receive training and experience in this exciting new field. The center operates several supercomputing clusters.

Math Clinic

Website: <http://www.ucdenver.edu/academics/colleges/CLAS/Departments/math/Research/mathclinic/Pages/ClinicConcept.aspx>

Each semester, the Department of Mathematical and Statistical Sciences conducts math clinics that are open to both undergraduate and graduate students. Each clinic is

sponsored by a business, government agency or research organization. The clinic sponsor provides a specific project on which students work with the supervision of a faculty member and a sponsor representative. Every clinic results in a final report to the sponsor and provides participating students with an opportunity to apply mathematics to relevant problems. Recent math clinic sponsors include Raytheon, Lockheed Martin, Xenometrix, Budget Truck Rental and United Launch Alliance.

Statistical Consulting Service

The Department of Mathematical and Statistical Sciences regularly offers a graduate course in statistical consulting in which students work on problems provided by researchers and clients at CU Denver and in the Denver metropolitan area. Potential clients should contact Loren Cobb at stats@math.ucdenver.edu or 303-315-1739.

Graduate Program

Director: Michael Ferrara

Telephone: 303-315-1705

The Department of Mathematical and Statistical Sciences offers the MS degree in Applied Mathematics and the PhD degree in Applied Mathematics. Each of these degree programs conforms to the rules and policies of the [Graduate School Rules](#).

Detailed descriptions of the requirements for the MS and PhD degrees are maintained at www.math.ucdenver.edu. The following is an abbreviated summary of these requirements.

Requirements for Admission

To begin graduate work toward the MS or PhD degrees, a student should have at least the following preparation: 30 semester hours of mathematics with each course grade at B- or better and *an overall GPA of 3.0 or better*, at least 24 of which are upper-division courses. These courses should include a full year of advanced calculus or introduction to analysis, one semester of linear algebra and one semester of either differential equations, abstract algebra, discrete mathematics or probability. Additionally, students should take the GRE exam.

Students who do not have all the prerequisites may be admitted with prerequisite deficiencies with the understanding that those deficiencies must be removed after admission. Students who have a cumulative undergraduate GPA that is less than 3.0 may be eligible for provisional admission to the master's program (see also the [Graduate School](#) admission requirements).

Application Deadlines

Applications to the MS or PhD program should be submitted by the following target dates to be guaranteed full consideration. International students should submit their applications one month prior to these target dates.

Target Dates for PhD Program	Target Dates for MS Program
Feb 1: fall or summer semester	Apr 1: fall or summer semester
Oct 1: spring semester	Nov 1: spring semester

Applications received after the target dates may still be considered for admission, depending on space availability.

Financial Support

PhD students and exceptionally strong MS students are encouraged to apply for teaching assistantships. A variety of other opportunities for financial support are also available.

Click [here](#) to learn about the **requirements for the MS in Applied Mathematics**.

Click [here](#) to learn about the **requirements for the PhD in Applied Mathematics**.

Applied Statistics Certificate

Director: Stephanie Santorico
Telephone: 303-556-2547
Website: www.math.ucdenver.edu

Click [here](#) to learn about the **requirements for the Graduate Certificate in Applied Statistics**.

Modern Languages

←Return to: [College of Liberal Arts and Sciences](#)

Chair: Devin Jenkins
Program Assistant: Agnes Romero-Moore
Office: Plaza Building, 118
Mailing Address:
Campus Box 178
P.O. Box 173364
Denver, CO 80217-3364
Telephone: 303-556-4893

Fax: 303-556-6038

Website: clas.ucdenver.edu/modlang/

- [General Information](#)
- [French Programs](#)
- [German Programs](#)
- [Spanish Programs](#)

Arabic Faculty

Lecturer:

Tamara el-Masri, MLS, University of Denver

Chinese Faculty

Senior Instructor:

Kuan-Yi Rose Chang, PhD, Purdue University

French Faculty

Associate Professor:

Diane Dansereau, PhD, University of Michigan

Associate Professor, Clinical Track:

Linda Alcott, PhD, University of Colorado

Senior Instructor:

Lori Willard, PhD, University of Colorado

Instructor:

Jocelyne Hunsinger, BA, University of Ottawa (Ontario, Canada)

French Advisor:

Diane Dansereau

German Faculty

Senior Instructor:

Tim Phillips, MA, University of Colorado

Latin Faculty

Instructor:

Mary De Forest, PhD, University of Colorado

Spanish Faculty

Associate Professors:

Michael Abeyta, PhD, University of California-Davis

Kathleen Bollard, PhD, University of California-Berkeley

Devin Jenkins, PhD, University of New Mexico

Andrés Lema-Hincapié, PhD, Cornell University and PhD, University of Ottawa

Assistant Professors:

María Luisa Fernández Martínez, PhD, University of California, Irvine

Alyssa Martoccio, PhD, University of Illinois

Instructors:

Ileana Gross, MA, University of Georgia

Amanda Ritchie, MA, University of Akron

Ted Wendelin, MA, University of Southern Mississippi in Morelia, Michoacán, Mexico

Graduate Advisor:

Michael Abeyta

Study Abroad Advisor:

Devin Jenkins

Internship Director:

Andrés Lema-Hincapié

General Information

The Department of Modern Languages includes Arabic, Chinese, French, German, Latin and Spanish. In addition to undergraduate majors, minors and certificates in French, German, and Spanish, the Department offers an MA in Spanish, and graduate coursework in French and German.

Relevance to Other Programs

In addition to fulfilling major and minor requirements, courses in the Department of Modern Languages prepare students in the language, literature and civilization of the countries and peoples they are studying. Certain courses may apply to the fulfillment of core curriculum requirements in the College of Liberal Arts and Sciences. Other courses lead to a secondary-school teaching certificate, the [Master of Humanities degree](#) and the Master of Arts degrees in Spanish and Education at CU Denver, and to the Master of Arts degree in French or Spanish at CU Boulder. Only courses numbered 5000 and above apply to the master's degree; students enrolled in a master's program in Boulder should consult with their advisor before enrolling in courses at CU Denver.

French

Graduate Program

At present, CU Denver offers no French courses above 5999. The courses at the 5000 level are applicable to an MA degree through CU Boulder and to the [Master of Humanities program](#) at CU Denver, depending upon degree plan approval by the appropriate graduate advisor.

German

Graduate Program

CU Denver offers no German courses above 5999. Courses at the 5000 level are applicable to an MA degree in German through CU Boulder and to the [Master of Humanities program](#) at CU Denver, depending upon degree plan approval by the appropriate graduate advisor.

Spanish

Graduate Program

Click [here](#) to learn about the **requirements for the MA in Spanish**.

Physics

←Return to: [College of Liberal Arts and Sciences](#)

Chair: Clyde Zaidins

Program Assistant: Dawn Arge

Office: North Classroom, 3801

Telephone: 303-556-8344

Fax: 303-556-6257

Website: clas.ucdenver.edu/physics/

Faculty

Professors:

Martin E. Huber, PhD, Stanford University

Alberto C. Sadun, PhD, Massachusetts Institute of Technology

Associate Professor:

Randall P. Tagg, PhD, Massachusetts Institute of Technology

Assistant Professors:

Douglas P. Shepherd, PhD, Colorado State University

Emeritus Professors:

Willard R. Chappell, PhD, University of Colorado

Clyde S. Zaidins, PhD, California Institute of Technology

Physics, as the most fundamental of the sciences, is the foundation upon which many other disciplines are built. Therefore, other programs often require knowledge of the fundamentals of physics, and a physics degree is an outstanding platform for employment and advanced study in many technical disciplines. The department offers both a course of study fulfilling the bachelor of science degree and a wide range of service courses for students majoring in disciplines other than physics.

The Department of Physics offers two programs of study, or tracks. Students should consult with a departmental advisor prior to choosing a track. *Track 1-Pure and Applied Physics* is intended for students preparing for graduate school, teaching careers, or careers in industry or government labs. *Track 2-Biophysics and Medical Physics* is seen as a bridge to an advanced degree in the health sciences for those interested in medical research, admission to medical school, preparation for work in a hospital or clinical situation, or industrial jobs in biomedical instrumentation. For either track, students preparing for employment in an interdisciplinary area (such as environmental, geophysical or energy study) can choose to add an appropriate minor or arrange a specific major program on an individual basis.

The department now also offers an online certificate in the [Scientific Foundations of Technical Innovation](#) at both undergraduate and graduate levels. This 12-semester-hour program is intended to foster careers in the practical application of physics and the potential commercialization of new technologies.

To enhance the employment and postgraduate study options of physics majors, the department is committed to providing students with opportunities for experimental, computational and theoretical research. On-campus opportunities are available through

the faculty research programs. Questions regarding physics courses or the physics curriculum should be directed to a departmental advisor. Appointments should be made through the physics office.

[Certificate Program](#)

Click [here](#) to learn more about the requirements for the **Scientific Foundations of Technical Innovation Certificate**.

Political Science

← Return to: [College of Liberal Arts and Sciences](#)

Chair: Tony Robinson

Program Assistant: Cory Gruebele

Undergraduate Advisor: Lucy McGuffey

Pre-law Advisor: Glenn Morris

Graduate Advisor: Thorsten Spehn

Director, New Directions Program: Kathryn Cheever

Office: Student Commons, Room 3212

Telephone: 303-315-1770

Fax: 303-315-1780

Website: www.cudenverpoliticalscience.org

[Faculty](#)

Professors:

Mike Cummings, PhD, Stanford University

Jana Everett, PhD, University of Michigan

Associate Professors:

Michael J. Berry, PhD, University of Colorado

Lucy McGuffey, PhD, University of Denver

Glenn T. Morris, JD, Harvard University School of Law

Tony Robinson, PhD, University of California, Berkeley

Thorsten Spehn, PhD, University of Denver

Christoph Stefes, PhD, University of Denver

Stephen C. Thomas, PhD, Stanford University

Assistant Professors:

Sasha Breger-Bush, PhD, University of Denver
Bassem Hassan, PhD, University of Denver
Betsy Jose, PhD, University of Pittsburgh
James Walsh, PhD, Regis University

Adjoint Faculty:

Kathryn Cheever, PhD, University of Colorado

Senior Instructors:

Harvey Bishop, MA, University of Colorado

Adjunct Faculty:

Loring Abeyta, PhD, University of Denver
Karen Breslin, JD, University of Denver
Charles Norton, JD, University of Chicago

Emeritus Faculty:

Joel Edelstein, PhD, University of California, Riverside

Political science is the study of people, power and the public good. Looking at a variety of societies, institutions and interpersonal situations, the discipline asks who has power, where this power comes from, how it is used, how it promotes or impairs the public good and how the public good is defined. Political science draws from other fields, such as psychology, philosophy, economics, sociology and world literature. Finally, it explores the relationship between idealism and realism, between theory and practice, between political thought and personal action.

Opportunities for students with a degree in political science include careers in business, teaching, journalism, community organizing and government service. A political science degree also serves as good preparation for professional training in law and public administration. The students' internship experiences increase their job opportunities. Students with an MA in political science may find careers in such areas as business, government research and administration and teaching at the community-college level. The CU Denver Political Science Masters Program provides many opportunities for professional development through political internships, for community-based learning through a focused community organizing and development curriculum (including many teaching, research and service partnerships with local community organizations), and for international engagement through a robust international politics curriculum, study abroad opportunities, and partnerships with international organizations.

Please visit the political science department website for detailed information on programs, faculty, students, courses and syllabi, community involvement and service learning, internships and photographs.

Graduate Program

Click [here](#) to learn about the **requirements for the Masters in Political Science** degree.

Click [here](#) to learn about the **requirements for the Masters in Political Science, New Directions** option.

Click [here](#) to learn about the **requirements for the Democracy and Social Movements Graduate Certificate**.

Click here to learn about the **requirements for the Public, Non-Profit and Community Leadership Graduate Certificate**.

Fourth World Center for the Study of Indigenous Law and Politics

Executive Director: Glenn T. Morris

Telephone: 303-315-1762

This center provides a research clearinghouse to students and faculty at CU Denver on legal and political issues that affect indigenous peoples (the Fourth World). In addition to supporting a modest library of rare books and periodicals on indigenous issues, the center also stocks video and audio resources on subjects of indigenous politics and a substantial news file archive on current developments in the Fourth World. The center has produced curricular materials, including the *Fourth World Bulletin*, for use in international relations and area-studies courses.

Center for NEW DIRECTIONS in Politics and Public Policy

Director: Kathryn Cheever

Telephone: 303-315-1755

Web site: clas.ucdenver.edu/newdirections/index.htm

This center provides academic programs, courses and research focused in the areas of politics and public policy with the purpose of developing the leadership capacities necessary to address changing public priorities for the 21st century within neighborhoods, communities, governmental jurisdictions and nonprofit entities. Students in the Center's academic programs include working professionals in public and non-profit 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. The New Directions program offers professional internships with a wide variety of political jurisdictions across Colorado, including several funded internships.

The center offers both undergraduate and graduate degrees in political science with emphases in public policy and administration.

Click [here](#) to learn about the **requirements for the Masters in Political Science, New Directions** option.

Psychology

←Return to: [College of Liberal Arts and Sciences](#)

Chair: Peter S. Kaplan

Administrative Assistant: Kimberly Hill

BA and Psychology Minor Undergraduate Advisor: Mitchell Handelsman

BS and Behavioral and Cognitive Neuroscience Minor Undergraduate Advisor:
David Albeck

Director, Clinical Health Psychology Ph.D. Program: Kevin Masters

Coordinator of Clinical Training: Barbara Walker

Program Assistant: Anne Beard

Interim Director, Psychological Services Center: Barbara Walker

Office: North Classroom, 5002

Telephone: 303-556-8565

Fax: 303-556-3520

Website: clas.ucdenver.edu/psychology/index.html

Faculty

Professors:

Elizabeth Sandlin Allen, PhD, University of North Carolina at Chapel Hill

Evelinn Borrayo, PhD, University of North Texas

James Grigsby, PhD, University of Colorado

Mitchell M. Handelsman, PhD, University of Kansas

Peter S. Kaplan, PhD, Indiana University

Kevin S. Masters, PhD, Brigham Young University

Associate Professors:

David Albeck, PhD, University of Colorado

Richard Allen, PhD, University of North Carolina at Chapel Hill

Joy L. Berrenberg, PhD, University of Colorado

Michael Zinser, PhD, University of Wisconsin, Madison

Assistant Professors:

Sondra Bland, PhD, University of Texas
Edward Dill, PhD, University of Kansas
Kristin Kilbourn, PhD, University of Miami
Krista W. Ranby, PhD, Duke University

Clinical Teaching Track Faculty:

Kevin Everhart, PhD, University of South Carolina
Barbara Walker, PhD, Ohio State University

Senior Instructors:

Joan Bihun, PhD, Wayne State University
Vivian Shyu, PhD, University of Denver

Emeritus Professors:

Rick M. Gardner, PhD, University of Nevada

Psychology is the scientific study of behavior, consisting of the following major areas of study: experimental psychology, biopsychology, animal behavior, developmental psychology, social psychology, cognitive psychology, personality, industrial/organizational psychology and abnormal psychology.

[Graduate Program](#)

The psychology department offers a master of arts (MA) degree in psychology with an emphasis in clinical psychology that is earned en route to the doctor of philosophy (PhD) degree in clinical health psychology. In general, our programs train students within the context of the scientist-practitioner model. That is, we value an integrated approach to both the science and practice of clinical psychology. Our training emphasizes the contribution of research to the understanding, treatment and prevention of human problems, and the application of knowledge that is grounded in scientific evidence.

Click [here](#) to learn about the **requirements for the PhD in Clinical Health Psychology**.

Social Science, Master of

←Return to: [College of Liberal Arts and Sciences](#)

Director: Omar Swartz, JD, PhD

Office: Student Commons 3201

Program Assistant: Angela Beale
Telephone: 303-315-3565
Fax: 303-315-3569
E-mail: masterhs@ucdenver.edu
Website: clas.ucdenver.edu/ict/index.html

Faculty

Associate Professor:

Omar Swartz, JD, Duke University; PhD, Purdue University

Senior Instructors:

Margaret L. Woodhull, PhD, University of Texas, Austin

Instructors:

Jordan Hill, PhD, Virginia Tech

The Master of Social Science (MSS) program is designed to meet the needs of students who prefer flexibility in constructing an individualized course of study in social science. Emphasis is placed on the integration of knowledge across and beyond traditional disciplinary boundaries. This is accomplished through three required seminars, courses from a variety of disciplines chosen with the approval of advisors and program directors, and a project or thesis. Courses can be chosen from the social science disciplines: anthropology, communication, economics, geography, history, law, political science, psychology and sociology, as well as from other disciplines and programs, e.g., English, philosophy, education, public affairs and architecture.

The MSS program is intended for students interested in developing their own interdisciplinary perspectives in such areas as social thought, public policy, women's studies, educational reform and cross-cultural studies or politics. The program can provide: training for advancement in the professions of education, business, social service and government; a basis for further graduate studies in a specific social science discipline or professional field; a means for teachers and other working students to tailor degree programs to fit their personal career development needs; and a nontraditional approach for recent university graduates or adults re-entering the university to pursue liberal educational goals in the social sciences.

Click [here](#) to learn about the **requirements for the Master of Social Science** degree.

Sociology

←Return to: [College of Liberal Arts and Sciences](#)

Chair: Teresa M. Cooney
Program Assistant: Rachel M. Gallegos
Office: Lawrence Street Center, Suite 420
Telephone: 303-315-2148
Fax: 303-315-2149
Website: clas.ucdenver.edu/sociology/

Faculty

Professors:

Teresa M. Cooney, PhD, The Pennsylvania State University

Associate Professors:

Candan Duran-Aydintug, PhD, Washington State University
Keith Guzik, PhD, University of Illinois at Urbana-Champaign
Jennifer A. Reich, PhD, University of California, Davis

Assistant Professors:

Stacey Bosick, PhD, Harvard University
Adam Lippert, PhD, The Pennsylvania State University
Esther Sullivan, PhD, University of Texas at Austin

Senior Instructor:

Kari Alexander, PhD, University of Colorado Boulder

Instructors:

Andrea Haar, MA, University of Colorado Denver
Carlos Reali, MA, University of Colorado Denver
Maren T. Scull, PhD, Indiana University

Professors Emeritus:

Sharon K. Araji, PhD, Washington State University
Karl H. Flaming, PhD, Syracuse University

Associate Professors Emeritus:

Richard H. Anderson, PhD, University of Oregon

Graduate

The MA Program in Sociology at CU Denver provides a coherent, progressive, educational experience that prepares students for either immediate entry to a master's level career or continued study in PhD programs. The program requires completion of 33 total credit hours, 27 of which are course and 6 comprise the student's comprehensive paper. The MA Program emphasizes training in research methods and offers concentrations in Crime, Law and Deviance; Health and Society; and Family, Social Services and Community.

Admission Requirements

Application to the MA program is open to all students holding a BA, BS or higher degree in any field. Students without prior training in sociology, but with otherwise exemplary records, may be admitted but may be required to make up undergraduate deficiencies without graduate credit in the areas of theory, methods and statistics.

Recommended Academic Standards

- A combined GPA of at least 3.3 for all courses taken at the undergraduate or graduate level prior to admission
- A combined GPA of at least 3.5 for all **sociology** courses taken at the undergraduate or graduate level prior to admission

Application Materials

- Complete application form
- Three letters of recommendation (at least two must be from academic/professional sources)
- One copy of official transcripts sent directly to the Department of Sociology from all schools where BA credit hours were taken
- A statement of purpose and goal of graduate study
- Writing sample
- GRE score may be optionally submitted to aid application file
- **International Students:** You must complete an International Student Application. Minimum TOEFL score of 525 required.

Application Deadlines

Applications are accepted for **fall** admission only. All application materials are due on February 15th.

Click [here](#) to learn about the **requirements for the MA in Sociology**.

Women's and Gender Studies

←Return to: [College of Liberal Arts and Sciences](#)

Director: Gillian Silverman (English)

Graduate Advisor: Margaret Woodhull (Humanities)

Office: 1050 9th Street, #102

Telephone: 303-556-4529

Fax: 303-556-2959

Website: clas.ucdenver.edu/wgst/

Associated Faculty

Joanne Addison (English)

Brenda J. Allen (Communication)

Elizabeth Allen (Psychology)

Laura Argys (Economics)

Pompa Banerjee (English)

Nicole Beer (English)

Myra Bookman (Humanities and Social Sciences)

Michelle Comstock (English)

Mary Coussons-Read (Psychology)

Candan Duran-Aydintug (Sociology)

Paula Espinoza (Ethnic Studies)

Jana Everett (Political Science)

Sarah Fields (Communication)

Sonja Foss (Communication)

Andrea Haar (Sociology)

Sarah Hagelin (English)

Rachel Harding (Ethnic Studies)

Amy Hasinoff (Communication)

Pamela Laird (History)

Marjorie Levine-Clark (History)

Donna Martinez (Ethnic Studies)

Myra Rich (History)

Candice Shelby (Philosophy)

Sarah Tyson (Philosophy)

Cate Wiley (English)

Women's and Gender Studies (WGST) is an interdisciplinary program that focuses on the centrality of gender and sexuality to understanding our past and present worlds. Students and faculty probe assumptions about men and women and question structures of inequality as they play out in local and global contexts. Through a study of gender and sexuality, we expand our thinking about other relations of power, such as race, class, ethnicity, nationality and physical ability. WGST fosters connections with the local community and promotes advocacy of human rights and social justice.

Graduate Studies

At the graduate level, students may pursue Women's and Gender Studies as a track in the [Master of Social Science degree program](#). Students learn to think critically about the condition of women and the role of gender in both historical and contemporary experience. Course work focuses on conceptual models for understanding women and gender, such as feminist, queer, post-colonial and race theories as they operate through culture, language, politics, visual representation and history. For more information, contact [Margaret Woodhull](#).

The WGST program also offers a Graduate Certificate in Women's and Gender Studies for students pursuing master's degrees in departments in the College of Liberal Arts and Sciences as well as non-degree seeking students.

Click [here](#) to learn about the **requirements for the Graduate Certificate in Women's and Gender Studies**.

School of Public Affairs

Click on the following to go right to that information:

- [Course list for the School of Public Affairs](#)
- [Departments and Programs](#)

Dean: Paul Teske

Associate Dean: Callie Rennison

Associate Dean: Kelly Hupfeld

Assistant Dean: Kathy Kilpatrick

Contact

Office:

Lawrence Street Center, 5th Floor
1380 Lawrence Street

Telephone: 303-315-2228

Fax: 303-315-2229

E-mail: spa@ucdenver.edu

Website: www.spa.ucdenver.edu

Mailing Address:

University of Colorado Denver
School of Public Affairs

Campus Box 142
P.O. Box 173364
Denver, CO 80217-3364

Current Student Inquiries

General Inquiries: 303-315-2228

Graduate Students Last Name A-L:

Dawn Savage, Student Services Coordinator
303-315-2743
Dawn.Savage@ucdenver.edu

Graduate Students Last Name M-Z:

Antoinette Sandoval, Student Services Coordinator
303-315-2487
Antoinette.Sandoval@ucdenver.edu

International Graduate Students Last Name A-Z:

Scott Steinbrecher, Coordinator of International Student Programs
303-315-2755
Scott.Steinbrecher@ucdenver.edu

Prospective Student Inquiries

Graduate

Brendan Hardy, Director of Student Recruitment and Career Services
303-315-2227
spa@ucdenver.edu

Application Deadlines

Masters Program Deadlines

Preferred Deadline

Fall - March 1
Spring - October 15
Summer - March 1

Final Deadline

Fall - August 1
Spring - December 1
Summer - 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.

The School of Public Affairs - *Lead. Solve. Change.*

The mission of the School of Public Affairs is to prepare 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.

Graduates of the School of Public Affairs (SPA) are prepared to **lead** the field, **solve** pressing social issues and **change** communities for the better. Our graduates include legislators, policy analysts and advocates, state agency directors, police chiefs, city and county managers, nonprofit leaders, and university faculty and administrators.

Nationally ranked for excellence, SPA 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. All degrees except the PhD are offered online as well as in person. The MPA program is accredited by the Network of Schools of Public Policy, Affairs, and Administration, and is ranked #29 by U.S. News and World Report. The online MCJ program is ranked #9 by U.S. News and World Report, and 5th among all programs in public universities.

Faculty at the School of Public Affairs are known for their rigorous scholarship and their dedication to public affairs, and regularly win awards for research and teaching. Our online classes are taught by the same faculty who teach in our classrooms - same content, same instructors, same high quality.

[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 and our state. SPA classrooms promote interaction among students, and the variety of backgrounds – including domestic, international, pre-career and mid-career students – enriches learning enormously.

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, named for former University of Colorado president John Buechner, was created to strengthen the longstanding bond between the School of Public Affairs and our community. Staff and affiliated faculty are dedicated to serving the Colorado community through research, evaluation, policy analysis, leadership development programs, and specialized workforce training. Leadership and workforce training programs include the Denver Community Leadership Forum, the Rocky Mountain Leadership Program, and Colorado's only accredited Certified Public Manager program.

The Buechner Institute's specialized research programs include the Center for Education Policy Analysis, the Center on Reinventing Public Education-Denver, the Criminology and Criminal Justice Research Initiative, the Research Program on Collaborative Governance, 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, the Wirth Chair in Sustainable Development, and HealthNewsColorado, an online health policy journalism site.

Complete Course List for the School of Public Affairs

Click [here](#) to see a complete list of courses offered by the School of Public Affairs.

Departments and Programs

Programs

Bachelor of Arts/Master of Criminal Justice

- [Criminal Justice BA/MCJ](#)

Bachelor of Arts/Master of Public Administration

- [Public Affairs BA/MPA](#)

Certificate

- [Emergency Management and Homeland Security Concentration](#)
- [Environmental Policy, Management and Law Concentration/Graduate Certificate](#)
- [Gender-Based Violence Concentration/Graduate Certificate](#)
- [Interpersonal Violence and Health Care Graduate Certificate](#)
- [Local Government Concentration and Graduate Certificate](#)
- [Nonprofit Organizations Graduate Concentration/Certificate](#)

Doctor of Philosophy

- [Public Administration PhD](#)

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](#)

Health Professions

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. 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.

Programs on the Anschutz Medical Campus

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

School of Dental Medicine

Contact: Dental Admissions, Student Life and Inclusion

Telephone: 303-724-7122

Website: www.ucdenver.edu/dentalmedicine

Degree Programs: Doctorate of Dental Surgery, International Student Program, Orthodontics, Periodontics, General Practice Residency programs

The University of Colorado School of Dental Medicine trains over 400 students annually. The four-year Doctor of Dental Surgery (DDS) program enrolls 80 new dental students each year. In addition to classroom curriculum and on-campus clinic requirements, DDS students provide dental care to underserved populations throughout the state of Colorado. Consistent with our mission to increase access to education and care, the school's International Student Program, begun in 2005, offers qualified graduates of foreign dental programs the opportunity to earn a Doctor of Dental Surgery degree. The school also offers post-doctoral orthodontics, periodontics, and general practice residency programs. Additionally, 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/PAPr ogram/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 as well as across rural, suburban 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.cuphysicaltherapy.org

Degree Program: Doctor of Physical Therapy (DPT)

The University of Colorado Physical Therapy Program offers a post-baccalaureate professional education program of didactic learning and extensive clinical experiences that culminates in a Doctor of Physical Therapy degree (DPT).

Eight consecutive semesters of coursework include classroom, laboratory and clinical education. In year three, students participate in a full-time, 16 week clinical experience as they enter the initial phase of the year-long internship. 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 65 years. Foundational elements of our curriculum include: patient-centered care; clinical reasoning and evidence based practice; movement for participation; teamwork and collaboration; and, quality improvement and safety.

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.

Continuing Medical Education

Telephone: 303-724-3552

Website:

ucdenver.edu/academics/colleges/medicalschool/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), dual doctor of nursing practice/master's in public health (DNP/MPH), PhD in nursing

Founded in 1898, the CU College of Nursing has a history of innovation that continues today. The nurse practitioner movement, school nurse program, and caring science theory, all began at CU. The innovation continues today with one of the nation's first interdisciplinary DNP/MPH programs with the Colorado School of Public Health and two new acute care nurse practitioner post-master's certificate programs beginning in 2014. US News and World Report continues to rank the College of Nursing among the best in the nation, and in 2014, the college's online graduate programs in nursing leadership and informatics were ranked within the top 10 in the U.S.

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/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 patient and medication safety has increased remarkably. The University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences 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 900 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, Epidemiology or Health Services Research; 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, DNP/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; community and behavioral health; community health education; environmental and occupational health; epidemiology; global health and health disparities; global health plus; health communication; health services research; health systems, management and policy;

occupational medicine; physical activity and healthy lifestyles; 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.

Programs

Graduate Degree Programs

Accounting MS

Program Director: Gary Colbert

Telephone: 303-315-8443

E-mail: Gary.Colbert@ucdenver.edu

The master of science in accounting is a flexible program that allows students to design individualized courses of study including three designated specializations; auditing and forensic accounting, controllership and financial leadership, and accounting and information systems audit and control.

The program provides students the opportunity to acquire a thorough understanding of financial and managerial accounting, auditing, accounting information systems, and taxation in preparation for successful careers in public or private accounting, as well as government or nonprofit accounting. Students have ample opportunity to choose coursework necessary to sit for the CPA exam, the CMA exam and other similar professional accounting certifications.

The MS accounting degree consists of 30 required hours + 15 hours that may be waived based on prior coursework (9 hours of prerequisites + 6 hours of Common Body of Knowledge (CBK):

Accounting Prerequisites: (9 hours)

The MS in accounting requires completion of the following accounting prerequisites.

Required Prerequisite Courses (advisor will evaluate transcript for possible waivers, grades must be a C or better to be considered for possible waiver):

- ACCT 6030 - Financial Accounting
undergraduate equivalent: ACCT 3220 and ACCT 3230
ACCT 6031 will also be required as part of the 9 semester hours of prerequisites.
- ACCT 6070 - Management Accounting
undergraduate equivalent: ACCT 3320

Common Body of Knowledge (CBK): (6 hours)

Depending on prior coursework, students may be required to take up to two background courses (advisor will evaluate transcript for possible waivers in the CBK):

- BUSN 6530 - Data Analysis for Managers
- BUSN 6620 - Applied Economics for Managers

Accounting Core: (12 hours)

Students may not receive graduate credit for undergraduate coursework and may not retake any course successfully completed at the undergraduate level with a grade of "C" or better. An advisor will evaluate prior coursework to determine possible 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 Capstone: (6 hours)

- ACCT 6250 - Seminar: Financial Accounting
- ACCT 6260 - Seminar: Managerial Accounting

Accounting Electives: (6 hours)

ACCT or MTAX courses numbered 6000 or higher excluding ACCT 6030 or ACCT 6070. Courses contributing to one of the specializations may be used to meet this elective requirement.

Free Electives: (6 hours)

Accounting careers are increasingly diverse, cutting across many industries, business functions and decisions. Accountants may eventually work as auditors, systems analysts and designers, financial planners, tax specialists, cost analysts, financial planning and budget officers, controllers, chief financial officers, or chief executive officers. Students will be better prepared for their careers if they develop additional competencies in a related field, which may be chosen from a single discipline such as finance, information systems, business analytics, 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, BANA, CMDT, ENTP, FNCE, INTB, ISMG, MGMT, MKTG, RISK, or MTAX excluding ACCT 6030 and ACCT 6070.

Total: 30 hours

Accounting Specializations

Students may use a combination of accounting and free electives to complete one of the following specialization options. Auditing and Forensic Accounting Specialization and Controllership and Financial Leadership Specialization follow the MS Accounting requirements above. Accounting and Information Systems Audit and Control Specialization follows the requirements listed below that specialization.

Auditing and Forensic Accounting Specialization

Students must complete one of the following two courses:

- ACCT 6025 - Auditing Practice
- ACCT 6620 - Advanced Auditing

Also complete three courses from the list below:

- ACCT 6024 - Advanced Financial Accounting
- ACCT 6280 - Professional Judgment and Ethical Decisions in Accounting
- ACCT 6320 - White Collar and Financial Crimes
- ACCT 6330 - Fraud Auditing
- 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

Controllership and Financial Leadership Specialization

Complete this required course:

- ACCT 6220 - Controllership: Financial Strategy and Controls

Complete three additional courses from the list below:

- ACCT 6024 - Advanced Financial Accounting
- ACCT 6033 - Advanced Managerial Accounting
- ACCT 6080 - Accounting for Government and Nonprofit Organizations
- ACCT 6280 - Professional Judgment and Ethical Decisions 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

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 note, this degree plan is 30 hours + 12 hours prerequisite hours + 9 hours in Common Body of Knowledge (CBK) as listed below.

Accounting Prerequisites: (12 hours)

Undergraduate course equivalents must be completed with a "C" or better. Advisor will evaluate transcript for possible waivers.

- BUSN 6550 - Analyzing and Interpreting Accounting Information
- ACCT 6030 - Financial Accounting
- ACCT 6070 - Management Accounting
- ACCT 6054 - Accounting Systems and Data Processing

Common Body of Knowledge (CBK): (9 hours)

Advisor will evaluate transcript for possible waivers in the CBK.

- BUSN 6530 - Data Analysis for Managers
- BUSN 6620 - Applied Economics for Managers
- BUSN 6540 - Legal and Ethical Environment of Business

AISAAC Common Courses: (12 hours)

- ACCT 6020 - Auditing Theory
- ACCT 6510 - Accounting and Information Systems Processes and Controls
- ISMG 6040 - Business Process Management
- ISMG 6830 - IT Governance and Service Management

Accounting Core: (9 hours)

- ACCT 6620 - Advanced Auditing
- ACCT 6250 - Seminar: Financial Accounting
- ACCT 6260 - Seminar: Managerial Accounting

Additional Degree Requirements: (9 hours)

Select 3 of the following:

- ACCT 6340 - Financial Statement Analysis
- ACCT 6360 - Fraud Examination
- ACCT 6470 - Internal Auditing
- ISMG 6080 - Database Management Systems
- ISMG 6180 - Information Systems Management and Strategy
- ISMG 6220 - Business Intelligence Systems and Analytics
- ISMG 6430 - Information Systems Security and Privacy

Administrative Leadership and Policy Studies EdS

[Administrative Leadership and Policy Studies](#)

Requirements for Principal Licensure, the MA and EdS degrees, Executive Leadership Administrator License, and EdD and PhD with Administrative Leadership & Policy Studies concentrations

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Web site:

<http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/Pages/Administrative-Leadership-and-Policy-Studies.aspx>

Click on any of the following to go right to that information:

- Principal Licensure
- Master of Arts Degree
- Education Specialist Degree
- Executive Leadership Administrator Licensure Program
- EdD Leadership for Educational Equity with Principal or Administrator License
- PhD Education & Human Development with concentration in Administrative Leadership & Policy Studies

[Faculty](#)

For information about faculty in this area,

visit <http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/FacultyandResearch/Pages/Our-Faculty.aspx>.

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. Alternatively, the administrator license may be required for district-level leadership positions in Colorado.

Principal Licensure Program

ALPS offers coursework that leads to eligibility to apply for the initial license for principal through the Colorado Department of Education. A passing score on the Principal PLACE content exam is also required for principal licensure through the Colorado Department of Education. Having earned an initial license, those who go on to complete a district sponsored induction program may then apply for 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 submit performance-based assessments (PBAs) during the principal licensure program to LiveText, an online assessment system. PBAs not approved 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 for pursuing administrator (superintendent) licensure.

Principal Licensure Cohort Options

Typically, cohorts are comprised of 25 principal candidates who move through the four-semester principal licensure program together. We look for applicants to have a teaching or special services license plus a minimum of three years post-licensure experience. We welcome applicants from all districts into our principal licensure cohorts. However, we partner with metro-area districts to prepare leaders specifically for their schools.

Distance Learning Cohort

The Distance Learning cohort option has a long history of serving students who live far away from campus. Additionally, this cohort offers students a hybrid (online and face-to-face) course format. Students meet in the first summer for a three-day boot camp. In the fall, they experience two Friday/Saturday weekend sessions. And, they attend two more weekend sessions the following spring. During the second summer, they attend a culminating half-day session. The rest of the work is completed online.

Denver Public Schools

The DPS cohort option is one of the DPS Pathways to Principalship. The work in this cohort is focused on leadership for ELL (English Language Learner) student populations as well as cultural leadership. Instructors and students work closely with not only state and national standards, but also with the LEAD Framework to prepare principals. Students meet on one Saturday and two Tuesdays a month over four semesters. A new cohort starts each spring. Please review this information on the DPS website.

Jefferson County Public Schools

The JeffCo cohort option is offered in partnership with Jefferson County Public Schools. Courses occur on twelve Tuesday evenings during each of the four semesters. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced JeffCo administrators.

Northern Cohort

The Northern Cohort option is offered in partnership with the Boulder Valley School District for applicants from northern-metro districts. This cohort meets on Wednesday evenings during each of the four semesters of the program. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced district administrators.

CU South Denver Cohort

The CU South Denver cohort serves southern-metro districts (Douglas County, Cherry Creek, Littleton, Sheridan, Englewood, Lewis-Palmer and Colorado Springs School District 11). This cohort meets on twelve Tuesdays during each of four semesters at the Liniger Building at CU South Denver. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced district administrators.

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: 3 to 9

EDUC 5752 - Principal Administrator Licensing II. Semester Hours: 3 to 9

EDUC 5753 - Principal/Administrator Licensing III. Semester Hours: 3 to 9

EDUC 5754 - Principal or Administrator Licensing IV. Semester Hours: 3 to 9

Total: 32 Hours

MA Program

The MA is designed for those who do not already hold a graduate degree. Master's students will complete 9 semester hours beyond the 32 required in the licensure program, for a total of 41 semester hours of coursework. Candidates must also successfully complete a comprehensive exam paper, reflecting on how the three MA classes will help them in the role of principal.

For the MA degree, students must select at least one course in each of the following three areas plus complete the 32 semester hour principal license:

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

EDFN 5050 - Critical Issues in American Education Semester Hours: 3

CLDE 5140 - Multicultural Education Semester Hours: 3

CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdns Semester Hours: 3

Section C: Education & Human Development/Special Education

EDHD 6100 - Advanced Child Growth and Development Semester Hours: 3

EDHD 5110 - Human Learning Semester Hours: 3

EDHD 6140 - Social Contexts of Adolescence and Schooling Semester Hours: 3

EDHD 5200 - Social Psychology of Learning Semester Hours: 3

SPED 5140 - Advanced Assessment in Special Education. Semester Hours: 3

SPED 5401 - Action Research and Leadership 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 principal 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 apply for an initial administrator license through the Colorado Department of Education and prepare for a career as a superintendent or other district leader. In addition to coursework, a passing score on the Administrator PLACE content exam is also required for administrator licensure through the Colorado Department of Education. The 12-semester-hour administrator licensure program combines weekend meetings with online work and hands-on clinical practice-usually completed in participants' home districts:

EDUC 7500 - Strategic Human Capital Development

EDUC 7510 - Strategic Organizational Management

EDUC 7520 - Strategic System Improvement

EDUC 7530 - Strategic Leadership Development

These courses are differentiated for four student types: certificate students, administrator licensure students, EdS students, EdD students and PhD students. Learn more at www.ucdenver.edu/education/elp.

EdD Leadership for Educational Equity with Principal or Administrator License

Students interested in pursuing the principal or administrator license along with a doctorate should instead apply to the EdD Leadership for Educational Equity instead of to the MA or EdS Administrative Leadership & Policy Studies with Principal License or the Executive Leadership Administrator License. See the Ed Leadership for Educational Equity with Executive Leadership Principal or Administrator License for more information.

PhD Education and Human Development with concentration in Administrative Leadership and Policy

The Administrative Leadership & Policy Studies PhD concentration serves as a key area for those concerned about leadership in schools and a key focus for research by scholars in higher education. A crucial assumption the 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. See the PhD Education and Human Development for more information.

Administrative Leadership and Policy Studies MA

[Administrative Leadership and Policy Studies](#)

Requirements for Principal Licensure, the MA and EdS degrees, Executive Leadership Administrator License, and EdD and PhD with Administrative Leadership & Policy Studies concentrations

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

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Web site:

<http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/Pages/Administrative-Leadership-and-Policy-Studies.aspx>

Click on any of the following to go right to that information:

- [Principal Licensure](#)
- [Master of Arts Degree](#)
- [Education Specialist Degree](#)
- [Executive Leadership Administrator Licensure Program](#)
- [EdD Leadership for Educational Equity with Principal or Administrator License](#)
- [PhD Education & Human Development with concentration in Administrative Leadership & Policy Studies](#)

[Faculty](#)

For information about faculty in this area,

visit <http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/FacultyandResearch/Pages/Our-Faculty.aspx>.

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. Alternatively, the administrator license may be required for district-level leadership positions in Colorado.

[Principal Licensure Program](#)

ALPS offers coursework that leads to eligibility to apply for the initial license for principal through the Colorado Department of Education. A passing score on the Principal PLACE content exam is also required for principal licensure through the Colorado Department of Education. Having earned an initial license, those who go on to complete a district sponsored induction program may then apply for 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 submit performance-based assessments (PBAs) during the principal licensure program to LiveText, an online assessment system. PBAs not approved 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 for pursuing administrator (superintendent) licensure.

Principal Licensure Cohort Options

Typically, cohorts are comprised of 25 principal candidates who move through the four-semester principal licensure program together. We look for applicants to have a teaching or special services license plus a minimum of three years post-licensure experience. We welcome applicants from all districts into our principal licensure cohorts. However, we partner with metro-area districts to prepare leaders specifically for their schools.

Distance Learning Cohort

The Distance Learning cohort option has a long history of serving students who live far away from campus. Additionally, this cohort offers students a hybrid (online and face-to-face) course format. Students meet in the first summer for a three-day boot camp. In the fall, they experience two Friday/Saturday weekend sessions. And, they attend two more weekend sessions the following spring. During the second summer, they attend a culminating half-day session. The rest of the work is completed online.

Denver Public Schools

The DPS cohort option is one of the DPS Pathways to Principalship. The work in this cohort is focused on leadership for ELL (English Language Learner) student populations as well as cultural leadership. Instructors and students work closely with not only state and national standards, but also with the LEAD Framework to prepare principals. Students meet on one Saturday and two Tuesdays a month over four semesters. A new cohort starts each spring. Please review this information on the DPS website.

Jefferson County Public Schools

The JeffCo cohort option is offered in partnership with Jefferson County Public Schools. Courses occur on twelve Tuesday evenings during each of the four semesters. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced JeffCo administrators.

Northern Cohort

The Northern Cohort option is offered in partnership with the Boulder Valley School District for applicants from northern-metro districts. This cohort meets on Wednesday evenings during each of the four semesters of the program. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced district administrators.

CU South Denver Cohort

The CU South Denver cohort serves southern-metro districts (Douglas County, Cherry Creek, Littleton, Sheridan, Englewood, Lewis-Palmer and Colorado Springs School District 11). This cohort meets on twelve Tuesdays during each of four semesters at the Liniger Building at CU South Denver. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced district administrators.

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: 3 to 9

EDUC 5752 - Principal Administrator Licensing II. Semester Hours: 3 to 9

EDUC 5753 - Principal/Administrator Licensing III. Semester Hours: 3 to 9

EDUC 5754 - Principal or Administrator Licensing IV. Semester Hours: 3 to 9

Total: 32 Hours

MA Program

The MA is designed for those who do not already hold a graduate degree. Master's students will complete 9 semester hours beyond the 32 required in the licensure program, for a total of 41 semester hours of coursework. Candidates must also successfully complete a comprehensive exam paper, reflecting on how the three MA classes will help them in the role of principal.

For the MA degree, students must select at least one course in each of the following three areas plus complete the 32 semester hour principal license:

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

EDFN 5050 - Critical Issues in American Education Semester Hours: 3

CLDE 5140 - Multicultural Education Semester Hours: 3

CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdn Semester Hours: 3

Section C: Education & Human Development/Special Education

EDHD 6100 - Advanced Child Growth and Development Semester Hours: 3

EDHD 5110 - Human Learning Semester Hours: 3

EDHD 6140 - Social Contexts of Adolescence and Schooling Semester Hours: 3

EDHD 5200 - Social Psychology of Learning Semester Hours: 3

SPED 5140 - Advanced Assessment in Special Education. Semester Hours: 3

SPED 5401 - Action Research and Leadership 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 principal 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 apply for an initial administrator license through the Colorado Department of Education and prepare for a career as a superintendent or other district leader. In addition to coursework, a passing score on the Administrator PLACE content exam is also required for administrator licensure through the Colorado Department of Education. The 12-semester-hour administrator licensure program combines weekend meetings with online work and hands-on clinical practice-usually completed in participants' home districts:

EDUC 7500 - Strategic Human Capital Development

EDUC 7510 - Strategic Organizational Management

EDUC 7520 - Strategic System Improvement

EDUC 7530 - Strategic Leadership Development

These courses are differentiated for four student types: certificate students, administrator licensure students, EdS students, EdD students and PhD students. Learn more at www.ucdenver.edu/education/elp.

EdD Leadership for Educational Equity with Principal or Administrator License

Students interested in pursuing the principal or administrator license along with a doctorate should instead apply to the EdD Leadership for Educational Equity instead of to the MA or EdS Administrative Leadership & Policy Studies with Principal License or the Executive Leadership Administrator License. See the Ed Leadership for Educational Equity with Executive Leadership Principal or Administrator License for more information.

PhD Education and Human Development with concentration in Administrative Leadership and Policy

The Administrative Leadership & Policy Studies PhD concentration serves as a key area for those concerned about leadership in schools and a key focus for research by scholars in higher education. A crucial assumption the 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. See the PhD Education and Human Development for more information.

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: archeology 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

Our MA program in cultural anthropology offers a unique focus on 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, health disparities, community-driven wellness practices, visual storytelling, social media designed to promote health equities, and language and communication in health care contexts.

Faculty members take a variety of theoretical approaches to the topic, but our program is distinguished by its applied and engaged perspectives. A particular strength of our program is its integration of theoretical knowledge with community- and field-based training opportunities and challenges. We prepare students for careers in nonprofit and community groups, non-governmental organizations, advocacy, public health, health care institutions, and health sciences research; our graduates also attend doctoral programs at selective institutions. Courses in the department are complemented by electives in other departments (sociology, biology, psychology, history, geography, political science) and programs on the CU Denver campus (public affairs, education, health administration) and at the Anschutz Medical Campus (Schools of Medicine, Public Health, Pharmacy and Nursing).

Courses

As part of the MA degree, students may take between 6 and 18 credits of electives in this track, choosing from:

- ANTH 5000 - Special Topics in Anthropology
- ANTH 5014 - Medical Anthropology: Global Health

- ANTH 5040 - Anthropology of Food and Nutrition
- ANTH 5060 - Evolutionary Medicine
- ANTH 5080 - Global Health Practice
- ANTH 5090 - Political Economy of Drugs
- ANTH 5150 - Human Biocultural Adaptability
- ANTH 5180 - The Nature of Power
- ANTH 5290 - Anthropology and Public Health
- ANTH 5300 - Migrant Health
- ANTH 5350 - Anthropology of Globalization
- ANTH 5450 - Development and Conservation: Contemporary Issues
- ANTH 5460 - Development and Conservation: Theory and Practice
- ANTH 5600 - Medical Anthropology
- ANTH 5800 - Special Topics in Medical Anthropology
- ANTH 5200 - Gender in Cross-Cultural Perspective

Note: Students are encouraged to take elective courses in GIS mapping (geography), ecology (biology/anthropology), public policy, public health, epidemiology and biostatistics as it is relevant to their course of study.

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

DEGREE TOTAL HOURS

Thesis Option: 30 Hours (including 4-6 hours of thesis)

Non-Thesis Option: 36 Hours

Applied Geography & Geospatial Science MA

► Graduate School Rules apply to this program

Program Director: Anne Chin

Office: North Classroom, 3522

Telephone: 303.556.3958

Fax: 303.556.6197

E-mail: anne.chin@ucdenver.edu

Web site: Applied Geography & Geospatial Science MA

Faculty

Professors:

Anne Chin, PhD, Arizona State University

Pamela Jansma, PhD, Northwestern University (CLAS Dean)

Associate Professors:

Casey Allen, PhD, Arizona State University

Peter Anthamatten, PhD, University of Minnesota

Frederick B. Chambers, PhD, Arizona State University

Rafael Moreno-Sanchez, PhD, Colorado State University

Brian Page, PhD, University of California, Berkeley

Gregory Simon, PhD, University of Washington

Deborah S.K. Thomas, PhD, University of South Carolina

Bryan S. Wee, PhD, Purdue University

John W. Wyckoff, PhD, University of Utah

Associate Professors- Clinical Teaching Track:

Rudi Hartmann, PhD, Technical University of Munich

Assistant Professors:

Christy Briles, PhD, University of Oregon

Senior Instructors:

Amanda Weaver, PhD, University of Denver

Instructors:

Matthew Cross, MA, University of Nebraska, Lincoln

Lecturers:

Richard DeGrandchamp

Michael Hinke

In the United States and around the world, balancing the preservation of the natural environment with the imperatives of economic development along with concerns for social well-being has led to a growing demand for broadly trained individuals who can identify and understand pressing social and environmental issues, collect and analyze relevant data, and develop and implement innovative solutions. Graduates of the proposed M.A program in Applied Geography and Geospatial Science will have the knowledge, training, and tools to become leaders in this rapidly growing field.

The program's research focus is human-environment interaction, a longstanding hallmark of the discipline of Geography. Within this area of critical geographic inquiry, the program emphasizes geospatial science, a federally recognized STEM subject area that includes geographic information systems (GIS) as well as computer cartography, remotely sensed image analysis, and spatial statistics. Students apply their geospatial research skills in the context of hands-on, faculty-led research projects that stress professional development through community engagement and interactive service learning.

Requirements for Admission

Applicants must hold a Bachelor's degree from an accredited institution.

The University of Colorado Denver has a minimum requirement of 3.0 undergraduate grade point average (GPA) for applicants to the Graduate School. The number of applicants admitted to the MA in Applied Geography & Geospatial Science in any year depends, in part, on space availability. The program is competitive, and we generally discourage applicants whose undergraduate GPA is below 3.0. Notification of acceptance or refusal for admission into the program is mailed to the applicant approximately six weeks after the deadline for submission of applications.

Application Process

We accept applications once per year, **before or on January 20th**, for admission in the following fall. As part of the admission review process, applicants are required to submit: a graduate application, statement of purpose that articulates the goals of pursuing a graduate degree in this program, a writing sample, a minimum of three letters of recommendation (academic references are preferred), and official transcripts from all institutions previously attended. GRE scores are also required from domestic students with an undergraduate GPA below 3.0 and all international students.

Financial Aid

There are three types of financial aid available: teaching assistant student hourly positions; 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 assistance at the time of admission to the program. Continuing students will be regularly apprised of available aid and positions. All other aid should be requested through the CU Denver Financial Aid Office, Student Commons Building 5th floor, Campus Box 125, P.O. Box 173364, Denver, CO 80217-3364. Telephone: 303-315-1850.

Internships

Students in the Applied Geography & Geospatial Science MA program are strongly encouraged to contact the Experiential Learning Center for internships and paid positions related to geographical 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.

Degree Requirements

The program is offered by the faculty of the Department of Geography and Environmental Sciences in the College of Liberal Arts and Sciences. Students undertake 36 credit hours over a two-year period. These 36 hours include required core classes (9 credit hours), a required service learning studio (3 credit hours), and required geo-spatial science coursework (12 credit hours). Students can elect to undertake either of two tracks: the first "coursework" track involves a further 12 hours of elective courses, whereas the second "thesis" track involves 9 hours of electives, and preparation of a written thesis (3 credits).

Thesis Option

33 hours of coursework + 3 thesis hours:

- GEOG 6300 - Foundations Seminar in Human-Environmental Interaction (3 hours)
- GEOG 6700 - Integrated Methods (3 hours)
- GEOG 6750 - Research Design (3 hours)
- GEOG 6800 - Community-Based Research Practicum (3 hours)
- 12 hours of Geospatial Science courses
- 9 hours of Elective courses (up to 6 hours can be taken outside the Department of Geography & Environmental Sciences, as approved by advisor)
- GEOG 6950 - Master's Thesis (3 hours)

Non-thesis Option

36 hours of coursework:

- GEOG 6300 - Foundations Seminar in Human-Environmental Interaction (3 hours)
- GEOG 6700 - Integrated Methods (3 hours)
- GEOG 6750 - Research Design (3 hours)
- GEOG 6800 - Community-Based Research Practicum (3 hours)
- 12 hours of Geospatial Science courses
- 12 hours of Elective courses (up to 6 hours can be taken outside the Department of Geography & Environmental Sciences, as approved by advisor)

Notes

- Many of the electives have pre-requisites; students must have met these requirements in order to take the course.
- Students may transfer up to 9 hours of approved graduate-level credit into the program. These courses must be approved by the Graduate Director and they may not replace core courses.
- Students may take up to 6 credit hours of independent study approved by their advisor. If a student takes two independent study courses, these should be taken from separate faculty members. Independent study may not replace the core program requirements.
- Students may not count 4000-level courses towards electives in the program; this may be petitioned to the Graduate Committee in exceptional cases.
- By the end of the first semester, each student should identify and declare whether s/he is pursuing the thesis or non-thesis option. If intending to pursue the thesis option, the student should identify and gain agreement from a content advisor for guiding the thesis, filling out and submitting the appropriate departmental form.
- Students may enroll in thesis preparation and writing hours only after submission of signed committee form, which requires approval of the thesis proposal.
- Students will not receive a grade for thesis preparation and writing hours until the thesis is successfully defended.
- Students should fill out and submit all relevant department forms for their files.

- Students must follow the graduate school deadlines for submission of paperwork for the graduation application, comprehensive exam, and any other deadlines. Links to these can be found on the GES/MS website:
<http://www.ucdenver.edu/academics/colleges/CLAS/Departments/ges/Programs/MasterofScience/Pages/Forms.aspx>

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 (subject to approval); 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, 5010, 5012-5015, 5017, 5198, 5250, and 5830.

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 either complete the degree requirements for an MS without concentration area or must fulfill specific course work requirements for one of the following areas of specialization:

- Applied Probability
- Applied Statistics
- 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 www.math.ucdenver.edu/ms

Architecture MArch

In Colorado's only graduate architecture program, we prepare students for entry into the profession and licensure. Our mission is to lead in the discovery, communication and application of knowledge in the

discipline of architecture by integrating theory and practice. In this collaborative educational model, environmental, economic, social, cultural, aesthetic and ethical concerns are fundamental.

Our program responds to and aligns with the evolving nature of professional practice. Collaborative work environments prize critical thinkers, problem-solving team players, builders and leaders with excellent communication skills. Recognizing that the practice of architecture is now global, we provide students with international perspectives and experiences giving them a competitive edge when they enter the profession.

Students whose undergraduate degree was not a design degree will take about 3 ½ years to complete; those who have an undergraduate design degree will likely receive credit for courses previously taken and can complete typically in about two years. The program provides the skills and bodies of knowledge nationally specified for graduate study in architecture and is fully accredited by the National Architectural Accrediting Board (NAAB).

Prerequisites

Students must complete the prerequisites of college-level trigonometry and physics before enrolling in the MArch program or must complete ARCH 5000 Math and Physics for Architects. This course is offered in the summer on a pass/fail basis and meets the prerequisite requirements. This class does not count toward the number of credits required for the M.Arch.degree.

Architecture skills workshop is recommended for students who do not have a background in architectural drawing, model making or digital graphics work. 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 Tracks

There are two curriculum tracks leading to the MArch degree, depending on the student's background.

Six Studio Track - 105 Semester Hours

This course of study allows students without a pre-professional degree to pursue a professional Master of Architecture degree in a minimum of three years. The curriculum follows a prescribed course of fundamental core courses and six design studios. Applicants must hold a baccalaureate degree from an accredited university in any field.

Four Studio Track - 60 Semester Hours

This course of study allows students with a pre-professional degree to pursue a professional Master of Architecture degree in a minimum of two years. The curriculum follows a prescribed sequence of core courses and four design studios. Applicants must hold a Bachelor of Science in Architecture, Bachelor of Art in Architecture or Bachelor of Environmental Design in Architecture to be considered for this path. All degrees awarded by universities outside the United States will be reviewed on a case-by-case basis and the admissions committee will determine the appropriate track.

Six Studio Track

Curriculum Overview

The curriculum for the Master of Architecture (M.Arch.) program is divided into six major areas of study, totaling 105 semester hours:

• Design Studios and Seminar	39 semester hours
• Representational Studies including required elective	6 semester hours
• Historical/Cultural Studies including required elective	12 semester hours
• Technological studies including required elective	21 semester hours
• Professional studies	12 semester hours
• Open Electives	15 semester hours

A wide array of electives in these areas allows students to tailor their graduate studies to their own interests. Of the 15 general elective semester hours, nine must be fulfilled with courses taken in the Architecture Department. Advanced standing in core course work can be given for prior architectural studies. Students may choose to take elective courses in the summer session. It is highly suggested that students use the summers to study abroad or participate in a professional internship.

Course Sequence

This schedule shows the recommended sequence of courses. To modify this schedule, students should consult their CAP academic advisor.

First Year

Fall

- ARCH 5110 - Design Studio I
- ARCH 5210 - Introduction to Architecture
- ARCH 5350 - Structures I
- ARCH 5510 - Architectural Graphics
- Professional Studies or Elective Requirement

Total: 18 Hours

Spring

- ARCH 5120 - Design Studio II
- ARCH 5220 - History and Theory Architecture I
- ARCH 5360 - Structures II
- Professional Studies or Elective Requirement
- Professional Studies or Elective Requirement

Total: 18 Hours

Second Year

Fall

- ARCH 5130 - Design Studio III
- ARCH 5230 - History and Theory Architecture II
- ARCH 5310 - Building Construction I
- Professional Studies or Elective Requirement
- Professional Studies or Elective Requirement

Total: 18 Hours

Spring

- ARCH 5140 - Design Studio IV
- ARCH 5330 - Sustainable Systems I
- Professional Studies or Elective Requirement
- Professional Studies or Elective Requirement

Total: 18 Hours

Third Year

Fall

- ARCH 5340 - Sustainable Systems II
- ARCH 6150 - Design Studio V
- Professional Studies or Elective Requirement
- Professional Studies or Elective Requirement
- Professional Studies or Elective Requirement

Total: 18 Hours

Spring

- ARCH 6170 - Design Studio VI
- ARCH 6171 - Integration Seminar
- Professional Studies or Elective Requirement
- Professional Studies or Elective Requirement

Total: 15 Hours

Four Studio Track

[Curriculum Overview](#)

The Four Studio Track curriculum for the Master of Architecture (M.Arch.) program is divided into six major components, totaling 60 semester hours in residence at University of Colorado Denver:

• Design Studios and Seminar	27 semester hours
• Representational Studies required elective	3 semester hours
• Historical/Cultural Studies required elective	3 semester hours
• Technological studies required elective	3 semester hours
• Professional studies	9 semester hours
• Open Electives	15 semester hours

A wide array of electives in these areas allows students to tailor their graduate studies to their own interests. Of 15 general elective semester hours, nine must be fulfilled with courses taken in the Architecture Department. Students may choose to take elective courses in the summer session. It is highly suggested that students use the summers to study abroad or participate in a professional internship.

In order for a student to complete the course of study within the 60 semester hours (two years of study) a student must have completed the following courses with a grade of B or better:

- 4 design studios (five or six credits each)
- 2-3 course sequence covering the history of architecture
- 1 course introduction to the theory of architecture
- 2 course sequence on sustainable environmental control systems
- 2 course sequence on structures addressing statics, material mechanics, structural analysis, and design of simple structural elements and systems
- 2 course sequence on building materials and construction
- 1 course on architectural visualization and representation
- 1 course on Building Information Modeling

Above courses not completed by the time the student enrolls in the program will be added onto the 60 semester hours and will need to be completed at the University of Colorado Denver prior to graduation. An official review of the student's previous course work will be conducted in the spring following admissions and will be sent to the student upon the receipt of the student's intent to attend.

[Course Sequence](#)

This schedule shows the recommended sequence of courses. To modify this schedule, students should consult their CAP academic advisor.

First Year

Fall

- ARCH 5130 - Design Studio III
- ARCH 5430 - Social Context of Design
- Required or Open Elective
- Required or Open Elective

Total: 15 Hours

Spring

- ARCH 5140 - Design Studio IV
- ARCH 5450 - Sustainable Design Practices
- Required or Open Elective
- Required or Open Elective

Total: 15 Hours

Summer (optional)

Second Year

Fall

- ARCH 6150 - Design Studio V
- ARCH 5410 - Professional Practice
- Required or Open Elective
- Required or Open Elective

Total: 15 Hours

Spring

- ARCH 6170 - Design Studio VI
- ARCH 6171 - Integration Seminar
- Required or Open Elective
- Required or Open Elective

Total: 15 Hours

Summer (optional)

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 one to two years with the choice of a project or thesis, either of which may be completed in academia or industry. Program details are available on the Department of Bioengineering website at ucdenver.edu/bioengineering.

Biology MS

- Graduate School Rules apply to this program.

Graduate MS Program Director: Michael Wunder

Office: Science, 4124

Telephone: 303-556-8870

E-mail: michael.wunder@ucdenver.edu

Website: clas.ucdenver.edu/biology/grad.html

Requirements for Admission

- A BA/BS from an accredited institution awarded within the last 10 years (validation of current content may be required)
- Minimum undergraduate GPA: 3.0
- General GRE test: minimum 50% performance in each section (quantitative, verbal, and analytical writing)
- TOEFL: required for international applicants from countries in which English is not the official language
- 3 letters of recommendation
- Official transcripts from all attended institutions
- Students are required to contact faculty in advance. Prior to application, applicants must have identified and contacted an available Faculty Advisor to ensure availability of a position and appropriate research interests

Prerequisite courses required:

- One year of general biology (lecture and laboratory)
- One year of any combination of chemistry, physics or mathematics
- One course in applied or biological statistics (through regression and ANOVA)
- Additional prerequisite requirements may be set by individual faculty

Application deadline is January 15 for both domestic U.S. and international students. Application to the master's in biology program is through CU Denver Admissions.

Degree Requirements

Students matriculate into the research-based MS degree program. Under unusual circumstances, students and/or advisors may petition for a student to switch into the coursework-based MS degree program. The research-based MS program requires a minimum of 30 credits, and the coursework-based MS program requires a minimum of 32 credits. A maximum of 12 hours of graduate level courses may be transferred and counted toward the degree in either program. Both programs additionally require the student to meet minimum academic residency requirements, to form an advisory committee and to deliver and orally defend written work before the advisory committee, which constitutes the final exam for both programs as required by the Graduate School.

Research-based MS degree program requires

1. Completing 30 credits including 3-6 thesis (BIOL 6950)
2. Meeting minimum academic residency requirements
3. Forming and meeting regularly with an advisory committee
4. Writing and defending research proposal
5. Writing and defending research thesis (including a publishable paper)

Coursework-based MS degree program requires

1. Approved petition to transfer into coursework-based program
2. Completing a minimum of 32 credits
3. Meeting minimum academic residency requirements
4. Writing and defending publication-quality review paper (before advisory committee)

Required Courses:

- BIOL 6705 - Biological Research Workshop (4 credits total-take in 2 different years)
- BIOL 6655 - Seminar (2 credits total-take in 2 different years)
- BIOL 6764 - Biological Data Analysis (4 credits total-take in 1 year)

Additional minimum requirements for the research-based MS program

- BIOL 6950 - Master's Thesis (1-2 credits in first spring/summer to write proposal and 2-4 credits in final semester to write thesis)

Additional minimum requirements for the coursework-based MS program

- BIOL 5840 - Independent Study: BIOL (3 credits: advisor-guided review paper)

Business Administration -- Health Administration MBA

Program Director: Errol L. Biggs
Telephone: 303-315-8851
E-mail: errol.biggs@ucdenver.edu

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. 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 48 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 - Leading Individuals and Teams
- BUSN 6530 - Data Analysis for Managers
- BUSN 6541 - Legal and Ethical Environment of Business (Health Section)
- BUSN 6550 - Analyzing and Interpreting Accounting Information
- BUSN 6561 - Marketing Management (Health Section)
- BUSN 6621 - Applied Economics for Managers (Health Section)
- BUSN 6630 - Management of Operations
- BUSN 6640 - Financial Management
- BUSN 6711 - Strategic Management (Health Section) *This course is intended to be taken in your last Spring semester.

Health Administration Core: (12 hours)

- HLTH 6010 - Health Care Systems
- HLTH 6070 - International Health Policy and Management
- HLTH 6770 - Healthcare Quality and Outcomes
- HLTH 6911 - Health Field Studies *This course is intended to be taken in your last Spring semester. Prereq: HLTH 6010 or consent of instructor, minimum 3.0 cumulative GPA.

Health Administration Information Technology Elective: (3 hours)

Select 1 of the following courses:

- HLTH 6071 - Introduction To Health Information Technology
- HLTH 6072 - Management of Healthcare Information Technology

The 2nd Health Administration Information Technology Elective may be used as Health Administration Elective.

Health Administration Electives: (6 hours)

Select 2 of the following courses:

- ENTP 6801 - Building Biotechnology
- ENTP 6848 - Leadership in New Ventures
- HLTH 6075 - International Health Travel Study
- HLTH 6740 - Profiles in Health Care

*HLTH 6071 or HLTH 6072 can be selected if not used as Health Administration Information Technology Elective.

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

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. Information on the full range of local, regional, and national residencies is available from the program director.

Length of program. A maximum of five years and one semester is allowed to complete the Health Administration program.

Business Administration MBA

Program Director: Dawn Gregg

Telephone: 303-315-8000

E-mail: Dawn.Gregg@ucdenver.edu

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. Students may combine on campus courses at our Denver campus or take courses at our South Denver location in Parker, Colorado. For students planning to combine courses at both locations, it is important to work with the advising team for planning purposes. 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 MBA (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: (30 hours)

- BUSN 6520 - Leading 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

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: (3 hours)

Any course numbered 6000 or higher with INTB prefix or any graduate level business course that is cross-listed with an INTB prefix. May also include the following: MTAX 6430 International Taxation, ENTP 6826 International Entrepreneurship, ENTP 6827 Global Action Projects for International Entrepreneurship, or RISK 6800 Cyber Risk Management and Cyber Warfare. Travel studies offered by Business School will also apply.

Free Electives: (15 hours)

Any course numbered 6800 or higher with BUSN prefix or any course numbered 6000 or higher with prefix of ACCT, BANA, CMDT, ENTP, FNCE, INTB, ISMG, MGMT, MKTG, MTAX, or RISK. Students may also select a MBA Specialization.

Total: 48 Hours

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 15 specializations are available:

- Accounting
- Bioinnovation and Entrepreneurship
- Business Analytics
- Business Intelligence
- Business Strategy
- Change Management
- Commodities
- 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
- Taxation

Accounting

Acquire specialized knowledge of United States Generally Accepted Accounting Principles (GAAP) and financial reporting standards for publicly traded companies. Analyze the information in corporate annual reports, SEC filings, etc., to gain a better understanding of financial performance and trends.

This specialization includes in-depth knowledge of management accounting techniques for budgeting and management of both service and product oriented businesses. Acquire knowledge of tax compliance requirements and tax planning strategies for normal business operations and for the life-cycle of business start-up, expansion, and reorganizations.

Students should complete required courses and elective courses from the lists below for a total of 4 courses. Your selection of courses is based upon any waivers that have been approved by an advisor. Please contact an advisor for course waiver options.

Required courses:

- ACCT 6030 - Financial Accounting
- ACCT 6070 - Management Accounting
- ACCT 6140 - Tax Planning for Managers

Select one more ACCT 6000 level course or higher as an elective, excluding ACCT 6030, 6070, and 6140.

It is not recommended to repeat any accounting coursework taken in undergraduate studies. Please see an advisor to assess undergraduate transcripts for repeat coursework. Students sitting for the CPA exam should be aware that the CPA will not allow repeat coursework for credit.

Bioinnovation and Entrepreneurship

The Jake Jobs Center for Entrepreneurship is pleased to offer a in Bioinnovation and Entrepreneurship specialization, the first of its kind to be offered by an AACSB accredited graduate business school in the country. Taking advantage of the incredible Colorado biocluster, in collaboration with faculty at Anschutz Medical Campus, this specialization is one-of-a-kind, and is geared to helping bioentrepreneurs achieve commercial success. Additionally, you have opportunities to participate in a number of Jake Jobs Center programs; including the annual business plan competition, internships in area businesses, speaker programs with local entrepreneurs, and connection with new ventures.

Select 1 of the following courses:

- ENTP 6801 - Building Biotechnology
- ENTP 6802 - Regulatory Environment of Life Science Innovation

Select two ENTP courses numbered 6000 or higher, excluding ENTP 6801 or ENTP 6802.

Select 1 of the following courses:

- ENTP 6020 - Business Model Development & Planning
- ENTP 6021 - Corporate Entrepreneurship

Business Analytics

Business analytics merges data, technology, and mathematical models to produce the evidence-based information needed for today's business and government decision-makers.

This specialization in business analytics trains you to construct and interpret models of big data, forecasting, optimization, and simulation. Analytics touch every aspect of business, driving the way businesses understand not only their own processes, but also the way their customers behave.

Complete four courses for the specialization. Select those four courses from any BANA course 6000 level or higher, excluding BANA 6610 and/or the following course as part of the four.

- MKTG 6050 - Marketing Research

Business Intelligence

Modern business runs on information. Success may depend on the quality of the collection and analysis. Business Intelligence (BI) systems combine operational data with analytical tools to present complex and competitive information to planners and decision makers. This improves the timeliness and quality of inputs to the decision process.

Select 4 of the following courses:

- ISMG 6080 - Database Management Systems
- ISMG 6220 - Business Intelligence Systems and Analytics
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6470 - Text Data Analytics and Predictive Modeling
- ISMG 6480 - Data Warehouse and Administration
- ISMG 6810 - Business Intelligence in Healthcare
- ISMG 6820 - Business Intelligence and Financial Modeling

Business Strategy

Business Strategy examines the development of firm strategic plans and implementation including careful resource allocation and leadership skills essential for organizations to effectively meet their objectives. With this specialization, you get the necessary skills and knowledge used to develop and implement business strategy.

Select 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 6500 - International Business Consulting
- MGMT 6320 - Leading Organizational Change
- MGMT 6360 - Designing Effective Organizations
- MGMT 6610 - Business Strategy Lab
- MGMT 6730 - Human Resources Management: Performance Management
- MGMT 6803 - Visionary Leadership
- MKTG 6010 - Marketing Strategy, Evaluation and Development

May select up to 2 of the following FNCE or RISK 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
- RISK 6909 - Corporate Risk Management

Change Management

Change is inevitable. Even when it is advantageous it can be difficult for organizations and people. Add the Change Management specialization to your degree and gain the necessary tools to help an organization understand the stages and benefits of change.

Required courses:

- MGMT 6320 - Leading Organizational Change
- MGMT 6360 - Designing Effective Organizations

Select 2 of the following courses:

- MGMT 6380 - Managing People for Competitive Advantage
- MGMT 6730 - Human Resources Management: Performance Management
- MGMT 6803 - Visionary Leadership
- MGMT 6804 - Bargaining and Negotiation
- MGMT 6808 - Leadership Development

Commodities

The specialization is a new offering from the J.P. Morgan Center for Commodities. MBA candidates and business professionals should take this specialization for a better understanding of the commodities market in its entirety, from both the physical and financial perspective, including trading operations, investment management, commodities and investment banking. With strong industry support, courses in this specialization are catered to and designed around actual business problems in the commodities sector. Students will have an edge in competing for jobs in the commodity rich sectors of this state.

Complete the following 4 courses:

- CMDT 6582 - Commodity Supply Chain Management
- CMDT 6682 - Trading in Commodity and Financial Markets
- CMDT 6802 - Foundations of Commodities
- FNCE 6382 - Survey of Financial Derivatives

Enterprise Technology Management

Gain a better understanding of business driven technology management. Add the Enterprise Technology Management specialization to your degree and focus on Information Technology as a prime driver and enabler of business strategy. To specialize in ETM you do not have to have a background in business

programming however you should take Information Systems Management (BUSN6610) from the core MBA prior to taking the courses in this specialization.

Select 4 of the following courses:

- ISMG 6040 - Business Process Management
- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6450 - IT Project Management
- ISMG 6460 - Emerging Technologies
- ISMG 6830 - IT Governance and Service Management

Entrepreneurship

The Entrepreneurship specialization provides a range of focused courses geared towards individuals looking to start their own business. Courses are taught at the Jake Jabs Center for Entrepreneurship located in the heart of downtown Denver or at the new South Denver location at I25 and Lincoln. Complete four entrepreneurship courses to receive a specialization in Entrepreneurship. Additionally, you have opportunities to participate in a number of Jake Jabs Center programs; including the annual business plan competition, internships in area businesses, speaker programs with local entrepreneurs, and connection with new ventures.

Complete four courses total.

Complete 3 courses with an ENTP 6000 or higher number, excluding ENTP 6801 and ENTP 6802.

Then select one of the following capstone courses:

- ENTP 6020 - Business Model Development & Planning
- ENTP 6021 - Corporate Entrepreneurship

Finance

Adding the finance specialization to your degree gives you skills in different financial functional areas including corporate, investments, and financial institutions. You get the tools and skill sets you need for finance decision making and investment.

Required course:

- FNCE 6330 - Investment Management Analysis

Select 3 FNCE or CMDT or RISK 600 level or higher courses.

Human Resources Management

A company is a group of people working toward a common goal. Add the Human Resources Management specialization to your degree, and get advanced knowledge and tools and techniques you can use in recruiting, hiring, developing, motivating and rewarding managerial and non-managerial employees. Also learn about technology solutions such as designing and delivering online training and performance management programs.

Complete the following required course:

- MGMT 6380 - Managing People for Competitive Advantage

Select 3 of the following courses:

- 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 6760 - Employee Benefits and Workforce Risk Management

Or the following RISK course:

- RISK 6409 - Employee Benefits and Workforce Risk Management
- MGMT 6808 - Leadership Development

Information Systems

You want to be sure you are learning skills relevant to business now. Information systems have become ubiquitous. Managers now understand the need for IS and the benefits that provide an edge on the competition. Information systems impact accounting, financing, marketing, management; in fact every area of business has been changed by technology.

Select 4 of the following courses:

- ISMG 6040 - Business Process Management
- ISMG 6060 - Analysis, Modeling and Design
- ISMG 6080 - Database Management Systems
- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6450 - IT Project Management

International Business

International Business is quickly becoming simply business. Adding a specialization in International Business to your degree will help you to work internationally, and with international companies. From cross cultural management to legal aspects to marketing internationally. Prepare yourself for how business works today.

Required course:

- INTB 6000 - Introduction to International Business

OR

- ENTP 6826 - International Entrepreneurship

Complete 3 of the following courses:

Any INTB 6*** course excluding INTB 6000 and INTB 6200. May include the following courses that are not INTB: ENTP 6827 (Global Action Projects for International Entrepreneurship); MGMT 6834 (London Calling: Global Sports and Entertainment-Travel Study); MTAX 6430 (International Taxation); RISK 6800 (Special Topics in Risk Management and Insurance).

Leadership

Become a more effective leader with this specialization as you concentrate on developing key leadership skills and learn about areas where leadership matters most.

Complete a total of 4 courses for the specialization.

Required courses.

Complete 2 or 3 of the following courses:

- MGMT 6803 - Visionary Leadership
- MGMT 6804 - Bargaining and Negotiation
- MGMT 6808 - Leadership Development

Then complete 1 or 2 of the following courses:

- BANA 6650 - Project Management
- ENTP 6848 - Leadership in New Ventures
- INTB 6000 - Introduction to International Business
- 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 (**prereq: one sustainable business elective**)

Managing for Sustainability

More than ever before, major companies and entrepreneurial ventures are seeking competitive advantage and success by embracing sustainability — social and environmental responsibility — as a core business strategy. Farsighted leaders recognize that this new way of doing business requires skills in sustainable management including social entrepreneurialism, eco-efficiency, inter-disciplinary problem solving and a triple bottom line approach of economics, environment and society. Make your degree a green MBA by adding the Managing for Sustainability specialization and learn what businesses are facing in a world where resources are scarce, social safety nets are declining, and customers and commentators are concerned about a company's investment in corporate responsibility.

Complete 4 of the following courses:

- ACCT 6285 - Accounting and Finance for Sustainability
 - BANA 6730 - Supply Chain Management
 - ENTP 6642 - Exploring Social Entrepreneurship
 - ENTP 6644 - Social Entrepreneurship in the Developing World
 - ENTP 6808 - Practicum in Sustainable Business Research
 - INTB 6870 - Global Climate Change
- OR**
- BUSN 6870 - Global Climate Change
 - 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
 - MKTG 6830 - Marketing & Global Sustainability

- MGMT 6840 - Independent Study **(by petition only)**
- MGMT 5939 - Internship **(by petition only)**
- OR
- MKTG 5939 - Internship **(by petition only)**

Students may take 1 sustainability course outside the Business School from another CU Denver school/college/department (by petition only).

Marketing

Marketing is about building long-term relationships between your firm and those who buy its offerings. Just how important is marketing to a firm's success? Well without it there would be no way to communicate with current or potential customers and no revenues. That's right, all of a firm's revenues flow through the marketing function and the way a firm communicates with its markets is through its offerings. Given its critical roles in the success of any firm you might want to develop a deeper understanding of the issues it addresses and a more complete toolkit for analyzing its impact. This is what an MBA degree with a Marketing specialization from the University of Colorado Denver is designed to do. Your MBA-based Marketing specialization will give you the skills and confidence needed to effectively manage a firm and in particular those aspects associated with building profitable, long-term, business relationships. Since Marketing is such a broad area that affects many aspects of business we provide you considerable flexibility to select courses that are appropriate for your chosen career. In fact, we recommend that before selecting your marketing electives you speak with one of our marketing professors for additional insights on which courses are better suited to your situation.

To complete the specialization select 4 MKTG 6000 level or higher courses.

Risk Management and Insurance

The specialization in Risk Management and Insurance is designed for students who are interested in pursuing or advancing a career in the insurance industry, or other areas of risk management.

Required courses:

- RISK 6809 - Principles of Risk Management & Insurance
- RISK 6909 - Corporate Risk Management
- RISK 6129 - Practical Enterprise Risk Management

Complete one of the following courses:

- CMDT 6682 - Trading in Commodity and Financial Markets
- FNCE 6330 - Investment Management Analysis
- FNCE 6350 - Financial Innovations
- FNCE 6360 - Management of Financial Institutions
- FNCE 6380 - Futures and Options
- FNCE 6382 - Survey of Financial Derivatives
- FNCE 6410 - Real Options and Decisions Under Uncertainty
- FNCE 6480 - Financial Modeling
- RISK 6309 - Strategic Risk Management

Complete one of the following courses:

- BUSN 6830 - Business and the Natural Environment
- INTB 6870 - Global Climate Change

OR

- BUSN 6870 - Global Climate Change
- BANA 6650 - Project Management
- CMDT 6582 - Commodity Supply Chain Management
- CMDT 6802 - Foundations of Commodities
- ENTP 6824 - Entrepreneurial Financial Management
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6450 - IT Project Management
- MGMT 6823 - The Sustainable Business Opportunity
- RISK 6409 - Employee Benefits and Workforce Risk Management
- RISK 6509 - Global Risk Management
- RISK 6800 - Special Topics: Cyber Risk Management & Cyber Warfare

Sports and Entertainment Management

The Sports industry is the sixth largest industry in the United States and the Sports and Entertainment industries are converging. To become a professional in these industries, you need special skills. Through this specialization, you gain the tools to get ahead in both the sports management and entertainment management industries.

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 5939 - Internship **(in Sports and Entertainment field; by petition only)**
- MGMT 6834 - London Calling: Global Sports and Entertainment Management **(Travel Study)**
- MKTG 6820 - Sports & Entertainment Marketing

Taxation

Gain an insight into one of the most important cost factors affecting entrepreneurs and businesses of all sizes - taxes.

Understand the fundamentals of federal income taxation and the role that taxes play in a business person's strategic investment and business decisions. Acquire knowledge of the various tax ramifications that influence way business ventures and enterprises are structured, organized, operated and eventually liquidated.

Students should complete required and elective courses from the lists below for a total of 4 courses. Your selection will be based upon any waivers that have been approved by an advisor.

Complete the following required courses:

- ACCT 6140 - Tax Planning for Managers
Please contact a graduate advisor for course waiver options for ACCT 6140.
- MTAX 6450 - Research Problems In Taxation

- MTAX 6400 - Taxation of Corporations and Shareholders

Elective courses to select from:

- MTAX 6430 - International Taxation
- MTAX 6440 - Tax Practice and Procedures
- MTAX 6475 - Accounting for Income Taxes
- MTAX 6480 - Partnership Taxation

Business Administration: 11-Month MBA

Program Director: Gary Colbert

Operations Director: Debbie Capaldi 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. 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. The admissions committee requires a minimum of two years professional work experience to apply. 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.

- application fee (domestic or international as appropriate)
- online application for graduate admission
- 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 - Leading 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.

Business Analytics MS

Program Director: Deborah Kellogg

Telephone: 303-315-8435

E-mail: Deborah.Kellogg@ucdenver.edu

The MS in Business Analytics focuses on modeling and applications which prepares you for a career as a business analyst 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. Business Analytics 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 Business Analytics 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, predictive analytics, and supply chain management. Students may elect to pursue a specialization in Big Data.

This degree is not designed to be completed in one year. Requirements for the MS degree in Business Analytics are met by the following courses and options:

Core Required Courses: (21 hours)

- BUSN 6630 - Management of Operations
- BANA 6610 - Statistics for Business Analytics
- BANA 6620 - Computing for Business Analytics
- BANA 6630 - Business Forecasting
- BANA 6640 - Decision Analysis
- BANA 6650 - Project Management
- BANA 6660 - Predictive Modeling with Big Data

Electives: (9 hours)

Select any three courses which must include BANA courses numbered 6000 or higher or MKTG 6050 Marketing Research.

Students may customize the degree by selecting BANA electives meeting the above description OR students may utilize BANA electives to complete the Big Data Specialization (BDA) outlined below:

Big Data Specialization

The following BANA core required courses must be completed for this specialization:

- BANA 6620 - Computing for Business Analytics
- BANA 6660 - Predictive Modeling with Big Data

Select one of the following courses:

- BANA 6800 - Special Topics
Special topics course will only count as part of this specialization if the special topic includes Big Data.
- BANA 6910 - Business Analytics Practicum
BANA 6910 will only count as part of this specialization if the topic includes Big Data.

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 Business Analytics (BANA) 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 Business Analytics. The evaluation of substitute courses will include syllabi evaluation and the accreditation of the transferring institution.

Total: 30 Hours

Chemistry MS

- Graduate School Rules apply to this program

Program Director: Scott Reed

Email: Scott.Reed@ucdenver.edu

Office: SI 4131

Phone: 303-556-6260

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.
- Applicants who fail to meet the full admission standards may be offered 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. The qualifying examinations are administered each fall and spring usually during the week before classes begin. They are required for all entering students. The purpose of these examinations is to evaluate a student's background in the basic areas of chemistry. The examinations are American Chemical Society standardized tests in the four core areas. All entering students are required to qualify in all four core fields during their 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)

- Construction Engineering and Management
- Geomatics Engineering and 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 Scores:

Applicants must submit evidence of adequate preparation for graduate study by either (a) submitting official GRE scores, or (b) documenting an earned bachelor's degree with a GPA of 3.00 or higher from an institution accredited by a U.S. accreditation body, or an earned master's degree with a GPA of 3.50 or higher from an institution accredited by a U.S. accreditation body.

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 must receive a grade of C-minus or better for the prerequisite class to apply to the 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.

If prerequisites are taken while admitted to the master's program, students must maintain a 3.0 overall GPA, per Graduate School rules.

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. Learn more in the International Students section of the catalog.

Communication MA

► Graduate School Rules apply to this program

Our vibrant community of scholars and teachers is committed to providing a real world, hands-on, and theoretically robust master's degree that will enrich your communication knowledge and skills for the twenty-first century. Our program is a 33-credit generalist degree designed to enhance students' intellectual and professional growth through the understanding and practice of effective communication. Our faculty members are nationally and internationally recognized leaders in their field, and our students hail from all over the world.

Students who complete our program often receive offers to top-notch PhD programs or accept or continue in positions related to communication management, strategic communication, public relations, media relations, human relations, and corporate and non-profit communications.

Degree Requirements

The MA degree in communication requires the completion of 33 hours of graduate course work (5000 level or above). As explained below, students have the option of taking 6 hours of 4000-level courses outside of Communication. 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 Introduction 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 Course

Most methods courses are offered every other year. Students who wish to pursue a PhD may elect to take additional methods classes in or outside the department.

Choose one:

- COMM 5022 - Critical Analysis of Communication
 - COMM 5205 - Empirical Research Methods for Communication
 - COMM 5221 - Research Methods: Qualitative
 - COMM 5700 - Writing Practicum
 - COMM 5710 - Topics in Communication
- The topics courses that may be used toward the methods requirement are Media Criticism and Film Criticism.

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. Seminars are often topics classes taught in faculty areas of expertise.

- COMM 5240 - Organizational Communication
- COMM 5250 - Difference Matters and Organizational Communication
- COMM 5265 - Gender and Communication
- COMM 5600 - Media Theory
- COMM 5710 - Topics in Communication
Topics include but are not limited to: Media Criticism, Film Criticism, Critical Theory, Communication, Globalization, Social Justice, Communication, Democracy, Civil Engagement, Digital Health Narratives, Organizational Discourse, and Communication and Security.
- COMM 5760 - New Media

*Graduate Seminars are courses that have a minimum enrollment of 15 or fewer graduate students.

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, provided the 4000 level classes are outside the department. 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.

- COMM 5040 - Communication, Prisons, and Social Justice
- COMM 5255 - Negotiations and Bargaining
- COMM 5265 - Gender and Communication
- COMM 5270 - Intercultural Communication
- COMM 5282 - Environmental Communication
- COMM 5710 - Topics in Communication
Topics include but are not limited to: Media Criticism, Film Criticism, Critical Theory, Communication, Globalization, Social Justice, Communication, Democracy, Civil Engagement, Digital Health Narratives, Organizational Discourse and Communication and Security.
- COMM 5500 - Health Communication
- COMM 5550 - Rhetorics of Medicine & Health
- COMM 5620 - Health Risk Communication
- COMM 5621 - Visual Communication
- COMM 5051 - Advanced Strategic Communication
- COMM 5665 - Principles of Advertising
- COMM 5840 - Independent Study
- COMM 5939 - Internship
- COMM 5995 - Travel Study

- **COMM 6950 - Master's Thesis**
You need 3-6 thesis credits if you elect the thesis option.

Total: 12 Hours

Thesis

Students wishing to complete a thesis must register for between 3-6 semester hours of thesis work, and will need 33 credits to graduate. Credit for a thesis may substitute for one or two elective course requirements.

Total: 3-6 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.

Students must comply with all rules of the CU Denver Graduate School.

Degree Total: 33 Hours

Computer Science MS

► Graduate School Rules apply to this program

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 must take 27 hours of graduate course work, and additionally take the MSCS capstone course (CSCI 6970), which counts for 3 credit hours. Independent study courses will not be counted toward graduation in this course only option.

Students are allowed a maximum of 3 credit hours of CS Independent Study (except in Plan III, 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 online 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 at engineering.ucdenver.edu/cse > Degree Programs.

Counseling MA

Return to: School of Education & Human Development

- Degree
- Admission Requirements
- Program Requirements

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.

Degree

The Master of Arts degree in Counseling program prepares professionals for community/mental health agencies, private practice, public schools, and institutions of higher education. Students should obtain faculty advising regarding professional requirements. Students accepted into the Counseling program follow one of the five concentration areas. The clinical mental health and clinical mental health-multicultural counseling tracks follow state licensure requirements for licensed professional counselor; the couple and family therapy track follows licensure requirements designated by the state of Colorado of licensure as a marriage and family therapist and state licensure requirements for licensed professional counselor; the school track follows both the licensed professional counselor licensure and Colorado Department of Education license as a school counselor requirements; and the higher education and student affairs track follows the Counsel for the Advancement of Standards in Higher Education standards but does not lead to any counseling license.

The clinical mental health, couple and family therapy, and school counselor tracks consist of 63 semester hours. The clinical mental health-multicultural track consists of 66 semester hours. Core requirements that are common to all areas of study are followed by courses specific to each program. The clinical mental health and clinical mental health-multicultural, couple and family therapy, and school counselor tracks require a practicum (150 clock hours) and an internship (600 clock hours). For students in these tracks, the master's degree is a three-year program with course work for two years followed by a year of practicum and internship.

The higher education and student affairs track consists of 45 semester hours. Students in this track are required to complete a 600 hour internship.

The clinical mental health and clinical mental health-multicultural, couple and family therapy, and school counselor tracks are nationally accredited by CACREP, the Council for the Accreditation of Counseling and Related Educational Programs.

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 and additional required materials. Applicants meeting these minimum standards may 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 or graduate level) is required prior to enrollment in the program or may be completed during the first semester 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.

Program Requirements

Counseling students must earn at least a B in skills-oriented courses (COUN 5100, 5160, 6140, 7100, 5910, 5930) or must repeat these courses until they do so. Students in clinical mental health and clinical mental health-multicultural, couple and family therapy, and school counselor tracks must also take a national comprehensive examination (after all core courses). Students in the higher education and student affairs track must complete a comprehensive examination in the last semester of study. Students may choose to conduct research and submit a thesis (research conducted under faculty advisement) instead of taking a comprehensive examination.

Counseling Core

COUN 5010 - Counseling Theories
COUN 5100 - Techniques of Counseling
COUN 5110 - Group Counseling
COUN 5150 - Family Counseling/Therapy*
COUN 5330 - Counseling Issues and Ethics*
COUN 5400 - Career Development
COUN 5810 - Multicultural Counseling Issues for Individuals and Families
EDHD 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 COUN core classes are completed.*

Total: 30 Hours

*not required for students in the higher education and student affairs track

Additional Requirements for Clinical Mental Health Counseling (MA)

COUN 5160 - Techniques in Family Therapy
COUN 5280 - Addictions Counseling
COUN 5820 - Strategies of Agency Counseling
COUN 6250 - Mental Health Diagnosis
COUN 7100 - Advanced Theories and Techniques in Psychotherapy
Two Additional Electives (6 semester hours)

Total: 21 Hours

Additional Requirements for Clinical Mental Health Counseling-Multicultural

COUN 5160 - Techniques in Family Therapy
COUN 5820 - Addictions Counseling
COUN 5820 - Strategies of Agency Counseling
COUN 5830 - Special Topics Gender & Sexual Orientation
COUN 6100 - Spiritual Dimensions of Counseling

COUN 6250 - Mental Health Diagnosis
COUN 6810 - Advanced Multicultural Counseling
COUN 7100 - Advanced Theories and Techniques in Psychotherapy

Total: 24 Hours

[Additional Requirements for School Counselor License \(MA\)*](#)

COUN 5280 - Addictions Counseling
COUN 5425 - Developing & Implementing a School Counseling Program: ASCA
COUN 5815 - Introduction to School Counseling
COUN 5915 - Practicum in School Counseling
COUN 6140 - Counseling Children, Adolescents and Their Parents
COUN 6230 - Developmental Counseling in Schools: Prevention & Intervention
COUN 6250 - Mental Health Diagnosis
PLACE Test is required for the Colorado Department of Education license for school counselors.

Total: 21 Hours

*100 hour practicum is required in the schools (COUN 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. COUN 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 Couple and Family Therapy \(MA\)](#)

COUN 5160 - Techniques in Family Therapy
COUN 5170 - Issues In Family Studies
COUN 5180 - Counseling Couples
COUN 6000 - Introduction to Sex Therapy
COUN 6140 - Counseling Children, Adolescents and Their Parents
COUN 6160 - Advanced Assessment: Theory and Treatment in Family Systems
COUN 6250 - Mental Health Diagnosis

Total: 21 Hours

[Additional Requirements for Higher Education and Student Affairs*](#)

COUN 5050 - Foundations of Student Affairs
COUN 5500 - Diversity in Higher Education
COUN 5130 - Student Development Theory
HDFR 5003 - Leadership and Organizations
COUN 5070 - Higher Education Law and Ethics
COUN 5930 - Internship in Counseling
Comprehensive Exam

Total: 15 Hours

*Students who have completed higher education and student affairs courses as part of the Human Development and Family Relations undergraduate major or minor at CU Denver, will be allowed to use these courses to satisfy program requirements; but, they will not receive graduate credit for these courses. As such, these students will be required to take elective courses to reach the 45 credit hour requirement.

Counseling Clinical Experiences

COUN 5910 - Practicum in COUN

COUN 5930 - Internship in Counseling

Total: 12 Hours

*not required for students in the higher education and student affairs track

Criminal Justice MCJ

Introduction

► Graduate School Rules apply to this program

Program Director: Callie Marie Rennison, PhD

The master of criminal justice (MCJ) program is designed for students interested in comprehensive professional graduate education in the fields of criminology and criminal justice. It is intended to develop in the student an in-depth understanding of the fields within criminal justice and criminology 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.

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

Callie Marie Rennison, PhD, University of Houston

Associate Professors:

Lori Hughes, PhD, Washington State University

Assistant Professor:

Lonnie Schaible, PhD, Washington State University

Senior Instructor:

Lucy Dwight, PhD, Pennsylvania State University

Sheila Huss, PhD, University of Colorado Denver

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 subscores of 20 or greater, 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.*

Preferred Application Deadline

Fall - March 1
Spring - October 15
Summer - March 1

*Final Deadline**

Fall - August 1
Spring - December 1
Summer - 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.

MCJ students may select two of the following for their first semester:

- CRJU 5001
- CRJU 5003
- 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. Taking courses as a nondegree student does not guarantee later admittance into the MCJ program. 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 MCJ student is 6 to 9 graduate credit hours per semester; full-time status for MCJ graduate students is 5 graduate credit hours per semester for financial aid determination. A student who is employed full-time is strongly advised not to carry more than 6 graduate semester hours in the MCJ program. Students who wish to carry a graduate course load above 9 hours per semester must consult their advisor and/or student service coordinator first.

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 1 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 the equivalent of at least one year of professional full-time experience in the field, following the awarding of their Bachelor degree. The purpose of the internship is to continue the linkage between theory and practice that is the philosophical basis of SPA. Internships generally involve substantive part-time work undertaken during the course of one semester. A maximum of three semester hours will be awarded for internship service. 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 seven years of registration in their first course.

MCJ Degree Requirements

The minimum requirements for the basic MCJ 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

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 B- 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

3. Course Work

Students must complete a minimum of 27 semester hours of course work in criminal justice.

4. Criminal Justice Internship

Students who have not had one year of criminal justice experience following the awarding of their Bachelor degree are required to complete CRJU 6910 (field study). A minimum of 240 hours of supervised work is required to earn 3 hours of credit. Students must have completed 18 credit hours with a GPA of 3.0 prior to enrolling in the internship course.

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. The capstone cannot be taken during the summer semester.

- 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 5270 - Case Studies in Crim Justice
- CRJU 5280 - Computer Crime
- CRJU 5301 - Crime and Media
- CRJU 5320 - Police Administration
- CRJU 5325 - Qualitative Methods for Criminal Justice
- CRJU 5330 - Gangs and Criminal Organizations
- CRJU 5391 - Sex Offenders and Offenses
- CRJU 5410 - Victimology

- CRJU 5420 - Violence in Society
- 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 5550 - Criminal Justice Policy and Planning
- CRJU 5551 - Courts, Law & Justice
- CRJU 5552 - Criminal Justice Ethics
- CRJU 5553 - Women and Crime
- CRJU 5555 - Profiling Criminal Behavior
- CRJU 5571 - The Social Organization of Crime
- CRJU 5572 - Race, Crime and Justice
- CRJU 5574 - White Collar Crime
- CRJU 5575 - The Mentally Disordered Offender
- CRJU 5576 - Social Science in the Criminal Justice System
- CRJU 6600 - Special Topics in Criminal Justice

MCJ Options

Concentrations and Graduate Certificates

Crime Analyst Concentration

A student may choose to complete a concentration in crime analysis studies as part of the MCJ degree, or the crime analyst program can be completed by non-degree students as a stand-alone graduate certificate. The certificate emphasizes criminal justice and criminology related subjects. Nonetheless, the analytic skills learned in this concentration or certificate can be easily transferred to non-criminal justice and criminology related fields. This is the beauty of the skills taught - they are not industry specific.

Students seeking a crime analyst concentration must complete 15 semester hours from the following required courses.

Requirements:

- CRJU 5003 - Criminal Justice Research Methods
- CRJU 5004 - Criminal Justice Statistics
- CRJU 5325 - Qualitative Research Methods
- CRJU 6600 - Intelligence Writing and Briefing
- CRJU 5331 - Law Enforcement Analysis

Total: 15 Hours

Gender-Based Violence Concentration/Graduate Certificate

A student may choose to complete a concentration in gender-based violence studies as part of the MCJ or MPA degree, or the gender-based violence program can be completed by non-degree students as a stand-alone graduate certificate. The program on gender-based violence provides an interdisciplinary perspective on crime, the formulation of laws and codes, the criminal legal system and its intersection with gender and violence. Students seeking a gender-based violence concentration must complete 15 semester hours related to gender-based violence, which are completed via intensive in-person and online hybrid courses that meet periodically throughout a two-year period.

Requirements

Students take the four specified courses below and one elective.

- PUAD 5910 - Nature and Scope of Interpersonal Violence
- PUAD 5920 - The Psychology of Interpersonal Violence
- PUAD 5930 - Interpersonal Violence Law and Policy
- PUAD 5940 - Interpersonal Violence Leadership, Advocacy, and Social Change
-

Total: 15 Hours

Emergency Management and Homeland Security Concentration

The graduate concentration in Emergency Management and Homeland Security is available as a concentration within the 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. Students completing this sequence will have the knowledge and skills necessary to assess and manage a broad range of hazards and disasters, and to understand the policy environment in which emergency management occurs.

Requirements

Students take two of the following three required courses as well as three elective courses approved by their advisor. The three elective courses may be drawn from the student's particular area of interest, such as policy and management, spatial analysis and quantitative assessment, or public safety.

- GEOG 5230 - Hazard Mitigation and Vulnerability Assessment
- PUAD 5650 - Public Policies for Homeland Security and Disasters
- PUAD 5450 - Law of All-Hazards Management

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

The Curriculum and Instruction (C&I) program offers a Personalized Professional MA degree, a MA degree plus endorsement, and endorsements in a variety of areas. The program is intended to provide licensed K-12 teachers the skills and understanding necessary for an ever-increasing diverse student body and to prepare them for curriculum development, implementation, and assessment. The program is also beneficial for those individuals who work in community colleges, professional development, or other ancillary services in education and beyond. This is not a licensure program. No teacher license will be issued upon successful completion of the program.

MA C&I Degree, MA C&I Degree + Endorsement, and Endorsement Areas

Personalized Professional C&I MA Degree with Concentration in: no license or endorsement)	C&I MA Degree + Endorsement	Endorsement Only
Culturally and Linguistically Diverse Education	C&I MA w/Culturally and Linguistically Diverse Education with K-12 endorsement	Culturally and Linguistically Diverse Education (K-12)
Reading and Writing	C&I MA w/Reading and Writing with Reading Teacher Endorsement: Elementary K-6, Secondary 7-12, or K-12	Reading Teacher: Elementary K-6, Secondary 7-12, or K-12
English Education		

Math Education		
Science Education		
Math and Science Education		
Special Education	C&I MA w/Special Education with Generalist Endorsement, Ages 5-21	Special Education Generalist Endorsement, Ages 5-21

The Master of Arts (MA) in Curriculum and Instruction offers three degree paths:

1. **Personalized Professional:** The customizable 30 credit hour MA path provides the opportunity for you to tailor your coursework to your specific needs as an Educator. Students choose from one of several concentration areas in which to focus, while having the flexibility to choose courses outside the concentration area for additional learning from the Thematic Course Categories. This MA does NOT lead to a license or an endorsement.
2. **MA plus endorsement:** The MA plus endorsement allows students to add an endorsement to their current teaching license in a variety of areas. In this program, students receive a MA and an endorsement. Recommendation for endorsement(s) is made by the C&I Program, but endorsement is granted by the State of Colorado. Individual State requirements vary and may include teaching experience and examinations in addition to a valid teaching credential. Students should consult with the Colorado Department of Education for the most updated endorsement requirements. http://www.cde.state.co.us/cdeprof/licensure_authorization_landing.
3. **MA for teacher licensure completers:** Students who have completed the Teacher Education licensure program in the SEHD have the option of completing their MA in Curriculum and Instruction.

Concentration Areas

Culturally and Linguistically Diverse Education Concentration

This concentration helps licensed teachers enhance their skills and credentials for working with English language learners. This concentration emphasizes a socio-cultural 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. We emphasize the "whole learner" in our teaching and in teacher education, 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. Course work includes language teaching methodology, language acquisition, linguistic analysis of English, multicultural foundations, assessment, literacy, and other areas.

Literacy, Language and Culturally Responsive Teaching Concentration

Reading and Writing

This concentration will enhance your literacy instruction skills and credentials while providing advanced knowledge and training to work with diverse student populations as they develop reading, writing, and

oral language skills. Course work includes language and literacy acquisition, culturally relevant teaching practices, literature, literacy assessment and informed instruction, hands-on practice, and other areas. We stress the importance of recognizing a variety of literacies - home, school, community, and mainstream - in both first and second languages, and the meaningful use of literacy and language to improve students' quality of life.

English Education

This concentration prepares licensed Secondary English or language arts teacher to work with diverse adolescents as they develop an appreciation for literature and composition. Course work includes theory and methods of English education, linking assessment and instruction, and practicum experience. The study of contemporary, ethnic, and classic literature, reading, and writing are woven together, along with speaking, listening, and viewing. We stress the importance of recognizing a variety of literacies - home, school, community, and mainstream - in both first and second languages, and the meaningful use of literacy and language to improve students' quality of life.

Mathematics Education Concentration

This concentration promotes elementary and secondary mathematics teachers' passion, confidence, and competence in providing mathematics teaching-learning processes informed by insightful theories, effective learning activities, and innovative teaching strategies, as well as by international perspectives. This concentration area focuses on integration of theory, research, and practice to enable teachers to make instructional decisions and implement mathematics lessons that promote students' conceptual understandings and problem solving, including opportunities for doing research.

Science Education Concentration

This concentration promotes elementary and secondary science teachers' passion, confidence, and competence in providing science teaching-learning processes informed by insightful theories, effective learning activities, and innovative teaching strategies, as well as by international perspectives. This concentration area focuses on integration of theory, research, and practice to enable teachers to make instructional decisions and implement science lessons that promote students' conceptual understandings and problem solving, including opportunities for doing research.

Mathematics and Science Education Concentration

This concentration area combines the mathematics education and science education fields to prepare teachers who can bridge these disciplines into exciting and innovative programming for students. It draws on the learning activities and experiences provided in the mathematics education and science education concentration areas.

Special Education Concentration

This concentration emphasizes the development of reflective practitioners through trans-disciplinary training, fosters reflective inquiry about teaching and learning, as well as the development of the skills, knowledge, and dispositions necessary to teach in elementary and secondary classrooms serving students with disabilities. Reflection and inquiry provide an informed and integrated basis for advocating for all learners.

Early Childhood Education MA

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: 30 semester hours

ECSE specialist license: 33 semester hours

Master's degree plus ECSE specialist license: 39 semester hours

Master's degree plus ECSE specialist added endorsement: 33 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: Hani Mansour (hani.mansour@ucdenver.edu)

The MA program in economics is designed to train students in the quantitative and applied economic skills that will best enhance their future employment opportunities in the private and public sectors, or their pursuit of PhD studies in economics or related fields.

Our MA program emphasizes extensive training in mathematical and quantitative analysis, including the provision of substantial exposure to applied econometrics, working with large and diverse data sets, and a wide range of statistical software. The program gives students the applied skills that employers demand, provides those pursuing advanced degrees an edge in gaining admission to top-flight PhD programs-and enhances the likelihood of the student's ultimate success.

Admission Requirements

- Meet all general admission requirements of the Graduate School (including a 2.50 undergraduate grade-point average).
- Submit three letters of recommendation (at least two letters should come from individuals who are familiar with your scholarly record. The third can be an additional academic reference or professional reference from someone who knows you well and can comment on your potential as a graduate student).
- Submit official transcripts from all colleges attended.
- Have completed 15 credit hours of undergraduate economics, including intermediate microeconomic theory and intermediate macroeconomic theory (upper division courses).
- Have completed courses in calculus and statistics (preferably a year of calculus and a course in econometrics or similar upper division statistics course. A course in linear algebra and/or differential equations is recommended).
- Submit GRE scores. 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 in economics score 154 or above (690 or above using the prior test scale) on the quantitative section of the GRE. However, this is not a minimum GRE cutoff score, nor is it a score above which admission is guaranteed. GRE scores are used in conjunction with other indicators of academic success at the Master's level. Applicants must show strong evidence of quantitative ability either through high grades in math, statistics, and economic courses, a high quant score on the GRE, or preferably both.
- International students must submit TOEFL scores. The minimum required 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 minimum TOEFL scores are a requirement of the Graduate School and cannot be waived by the department of economics. The Graduate School may waive the TOEFL requirement for applicants who have attended a college or university in the United States as a full-time student and have completed two semesters of academic work with a "B" average (3.0 GPA or higher). Please contact the International Admissions office if you have questions about this requirement.

Application Deadlines:

Fall - June 1

Spring - December 1

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 in advance the application deadline.

International students who apply after the June 1 or December 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 Admissions.

Degree Requirements

The MA degree requires the completion of 30 semester hours of coursework, of which 21 hours are core requirements. Each student's plan will be worked out in conjunction with the graduate advisor.

Students are expected to meet all course prerequisites. A grade of B- or better is required in all courses, with a cumulative grade point average of B (3.0) or above. No course may be taken more than twice.

Core Courses

- 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 6054 - Seminar In Applied Economics II
- ECON 6073 - Research Seminar

Total: 21 hours

Electives

Three courses numbered 5000 or higher with an ECON prefix (9 semester hours). After completing 6 credit hours of ECON 6053/6054 as part of the economics core, additional ECON 6053/6054 courses may be counted as electives.

Total: 9 Hours

Degree Total: 30 Hours

Education & Human Development (EDHD) MA

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Website: www.ucdenver.edu/education

Faculty

Information about EDHD faculty is available online at www.ucdenver.edu/education.

Master's Degree

The MA program in education and human development prepares students to facilitate the teaching/learning process and to lead and work in community-based environments. Thus, many students pursue the degree to enhance their skills as professional classroom teachers or lead in the community. The degree also provides skills necessary for a variety of roles in educational and teaching settings or community environments where knowledge of learning, development, understanding family and community systems, motivation, and research is essential such as teaching at the community college and teaching-based colleges and universities levels, teaching adults, consulting, developing assessments, community-based leadership, and conducting program development and evaluation. Other students seek the MA as preparation for advanced study in educational psychology, family science and human development, research, or related fields.

Areas of Study

Four major areas of concentration are available- learning, human development and family relations, research and evaluation, and assessment. Regardless of the concentration area selected, all students must:

- demonstrate competence in education and human development by successfully completing 30 semester hours of relevant course work;
- complete a capstone experience either a practicum or a master's thesis in consultation with their faculty advisor based on the students' professional and academic goals; and
- perform satisfactorily on a written comprehensive examination (excluding thesis students) (typically during the last term enrolled in regular courses).

Learning

This program prepares students to apply research-based knowledge and to develop culturally relevant knowledge and skills that inform a wide range of practices and issues within the field of education and innovative learning environments. This program concentration provides opportunities for the student to develop an in-depth understanding about human learning across age groups, in formal and informal educational and community contexts. Courses will focus on the learning process including cognition, instructional design, motivation and developmentally appropriate practices to support learning for children, adolescents and adults within a sociocultural framework..

Human Development and Family Relations (HDFR)

Students will engage in developing their skills to work in and lead community-based organizations including, but not limited to secular, faith-based, for profit, nonprofit, school-based, and local, state, federal and international organizations. The importance of family diversity and social justice is stressed throughout the HDFR curriculum through its courses and experiences. Students can also develop their knowledge in family relations in preparation for doctorate studies in family science and human development or related areas.

The EDHD program does provide a pathway for MA students (HDFR and Learning areas) to pursue their PhD in EDHD with a Family Science and Human Development concentration. For more information please visit our School of Education and Human Development.

Students who complete the MA in EDHD with a HDFR emphasis will also be eligible to complete the bilingual (Spanish) Family and Community Services concentration area in preparation to work with Spanish speaking families and communities. Advisor approval is required for this concentration.

The HDFR area also provides classes to all School of Education and Human Development (SEHD) graduate programs, offering courses in family theories, family dynamics, and diverse family systems, Latino family, school and community systems, family resource management, leadership and organizations, grant writing and fund raising, program development and other family relations based courses.

Research and Evaluation Methods (RSEM)

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.

Assessment

This program concentration provides opportunities for you to develop an in-depth understanding about educational psychology as it relates to learning-related assessment. You'll address issues in both classroom and large-scale assessment and focus on other forms of assessment, such as portfolios and performance assessments. You also may specialize in assessment in a content area like literacy or mathematics.

Electrical Engineering MEng

► Graduate School Rules apply to this program

A minimum of 30 credit semester hour of academic work acceptable to the Advisory Committee (within the rules established by the College of Engineering and Applied Science) will be required for the Master of Engineering degree. In compliance with the Graduate School rules, the minimum grade required for a unit to count toward the 30 semester hours is a B minus (2.7). To couple this degree with electrical engineering, at least 15 of these hours must be 5000-level or above in electrical engineering courses, and must be taken in the CU Denver Department of Electrical Engineering. As many as 15 hours can be taken outside of electrical engineering, included 3 credit hours for the master of engineering project. The project should cover some area of creative investigation performed by the student and may relate directly to his/her professional work. The project must be defended orally before the Advisory Committee.

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

To fulfill the requirements for the master of science in electrical engineering (MSEE), the Electrical Engineering Department at CU Denver requires that within a seven-year period, the candidate completes and approved program in one of two options: (a) a **thesis option** consisting of at least 30 semester hours, including 6 credit hours of MS thesis, or (b) a **course-only option** consisting of at least 30 semester hours. It is also required the the MSEE candidate maintain a grade point average of 3.0 or higher. In compliance with the Graduate School rules, the *minimum* grade required for a unit to count toward the required semester hours is B minus (2.7).

For both thesis and course-only master of science in electrical engineering options, the student must select a primary area of concentration and a secondary area of concentration, among the six areas listed below. The areas should be chosen a priori with the student's graduate advisor. The student must take at least four 3-hour graduate courses (12 credit hours) in his/her primary area of concentration, and at least two 3-hour graduate courses (6 credit hours) in his/her secondary area. All of these courses must be taken through the CU Denver EE Department. The remaining courses may be taken from any area of concentration. A student may also take one 3-credit independent study course with a graduate faculty member of the CU Denver EE department. At least 21 graduate credit hours must be taken from the CU Denver EE Department. At the discretion of the EE graduate committee, a maximum of nine graduate credits may be transferred from other programs.

The CU Denver EE Department offers six areas of concentration at the master's level:

1. Communications and Signal Processing
2. Computer Engineering and Embedded System Design
3. Controls and Signal Processing
4. Electromagnetic Fields, Waves and Optics
5. Energy and Power Systems
6. Microelectronics and VLSI

English MA

► Graduate School Rules apply to this program

Program Director: Philip Joseph

Telephone: 303-556-4648

E-mail: philip.joseph@ucdenver.edu

The department offers an English MA degree focused around five core courses with specializations available in literature, rhetoric and the teaching of writing, and applied linguistics.

Contact the graduate program director for more information on these programs.

Requirements for Admission

The deadline for summer or fall admission is April 1; the deadline for spring is October 1. Complete applications 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 general test, which includes 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 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 CU 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 graduate advisor. 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 303-556-2575.

Degree Requirements

GENERAL REQUIREMENTS

- Satisfactory completion of all required course work
- 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)

Total Hours Required: 30-33 hours

All courses are 3 credit hours unless otherwise noted.

Students must receive a *B-* or above in all courses counted toward the MA degree.

REQUIRED COURSES

- ENGL 5100 - Introduction to Graduate Studies
- ENGL 5135 - English Language Study
- ENGL 5145 - Theory
- ENGL 5155 - Genres of Writing
- ENGL 5165 - Literacy and Technology

Total: 15 Hours

AREA REQUIREMENTS

Students may choose to concentrate 12 hours of English graduate courses in a particular area of study that meets the student's goals in the program.

Total: 12 Hours

THESIS OR PORTFOLIO OPTIONS

- ENGL 6950 - Master's Thesis
(4-6 hours)
Students must consult with and submit a proposal to the graduate committee for approval.

or

- ENGL 6970 - Portfolio Exam
(3 hours)

Total: 3-6 Hours

Additional Information

Candidate for Degree: Graduate students must be registered for at least one credit hour during the semester that they graduate. Those who have completed all required courses and requirements may register for Candidate for Degree: CAND 5940 section 900.

Teaching Assistantships: Graduate students who receive a teaching assistantship must take ENGL 5913 - Practicum in Language and Rhetoric in the fall during their first semester as a teaching assistant. ENGL 5913 may also be counted as an elective.

Independent Study: Graduate students may only count 6 credit hours of Independent Study toward the English MA degree.

Environmental Sciences MS

- Graduate School Rules apply to this program

Program Director: Anne Chin

Office: North Classroom, 3522

Telephone: 303-556-3958

Fax: 303-556-6197

E-mail: anne.chin@ucdenver.edu

Web site:

<http://www.ucdenver.edu/academics/colleges/CLAS/Departments/ges/Programs/MasterofScience/Pages/MasterofScience.aspx>

Core Faculty of the M.S. in Environmental Sciences Program

Professors:

Anne Chin, Geography and Environmental Science

Pamela Jansma, Geography and Environmental Science

Associate Professors:

Casey Allen, Geography and Environmental Science

Peter Anthamatten, Geography and Environmental Science

Frederick B. Chambers, Geography and Environmental Science

Rafael Moreno-Sanchez, Geography and Environmental Science

Brian Page, Geography and Environmental Science

Gregory Simon, Geography and Environmental Science

Deborah S.K. Thomas, Geography and Environmental Science

Brian S. Wee, Geography and Environmental Science

John W. Wyckoff, Geography and Environmental Science

Assistant Professors:

Christy Briles, Geography and Environmental Science

Senior Instructors:

Amanda Weaver, Geography and Environmental Science

Instructors:

Matthew Cross, Geography and Environmental Science

Lecturers:

Richard DeGrandchamp, Geography and Environmental Science

Michael Hinke, Geography and Environmental Science

Faculty Affiliates to the M.S. in Environmental Sciences Program

Professors:

N. Y. Chang, Civil Engineering

Diana F. Tomback, Integrative Biology

Associate Professors:

Leo P. Bruederle, Integrative Biology

Greg Cronin, Integrative Biology

Michael J. Green, Integrative Biology

Glenn T. Morris, Political Science

Timberly M. Roane, Integrative Biology

Michael Wunder, Integrative Biology

Assistant Professors:

Annika Mosier, Integrative Biology

Indrani Pal, Civil Engineering

Alan Vajda, Integrative Biology

Environmental Sciences is a multidisciplinary study of the natural/physical environment. 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).

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 path 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 social sciences. The goals of the program are (1) to enhance the interdisciplinary communication and analytical skills of the student, and (2) to 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 MS in 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 have 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)

- either two semesters of general chemistry with lab or two semesters of general biology with lab
- one semester of physics

If only two semesters of the 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. CU 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 January 20th deadline.**

Financial Aid

There are three types of financial aid available: student hourly teaching assistantship; 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 assistance at the time of admission to the program. Continuing students will be regularly apprised of available aid and positions. All other aid should be requested through the CU Denver Financial Aid Office, Student Commons Building 5th floor, Campus Box 125, P.O. Box 173364, Denver, CO 80217-3364. Telephone: 303-315-1850.

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 non-thesis program. General requirements for the program include a set of core courses (12 semester hours) and elective courses (24-27 semester hours minimum). Students choosing to complete the thesis option must also complete 3 hours of thesis credit, while those choosing the non-thesis option must complete 3 hours of additional elective coursework.

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.

Thesis Option

36 hours of coursework + 3 thesis hours:

- ENVS 6002 - Research Topics in Environmental Sciences (3 hours)
- ENVS 6004 - Research Methods in Environmental Science (3 hours)
- ENVS 6100 - Research Topics in Environmental Management (3 hours)
- ENVS 6800 - Community-Based Research Practicum (3 hours)
- 24 hours of elective courses
- GEOG 6950 - Master's Thesis (3 hours)

Non-thesis Option

39 hours of coursework:

- ENVS 6002 - Research Topics in Environmental Sciences (3 hours)
- ENVS 6004 - Research Methods in Environmental Science (3 hours)
- ENVS 6100 - Research Topics in Environmental Management (3 hours)
- ENVS 6800 - Community-Based Research Practicum (3 hours)
- 27 hours of elective courses

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 24-27 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 or 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: Frederick Chambers

Telephone: 303-556-4520

E-mail: Frederick.Chambers@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: Christy Briles

Telephone: 303-352-3962

E-mail: Christy.Briles@ucdenver.edu

Required Courses

- BIOL 5415 - Microbial Ecology
- ENVS 5010 - Landscape Geochemistry

Total: 6 Hours

Electives

Choose two:

- ENVS 5731 - Mountain Biogeography
- ENVS 6220 - Toxicology (see Note 2)
- BIOL 5050 - Advanced Biology Topics
(when Seminar in Aquatic Ecology is the topic)
- BIOL 5154 - Conservation Biology
- 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)
- GEOG 5710 - Disasters, Climate Change, and Health
- 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: 303-556-6039

E-mail: bryan.wee@ucdenver.edu

Required Courses

- ENVS 5340 - Equity & Culture in Science Education: Local/Global
- ENVS 5650 - Environmental Education

Total: 6 Hours

Electives

Choose two:

- ANTH 5170 - Culture and the Environment
- BIOL 5154 - Conservation Biology
- COMM 5282 - Environmental Communication
- GEOG 5265 - Sustainability in Resources Management
- GEOG 5335 - Contemporary Environmental Issues
- GEOG 5440 - Science, Policy and the Environment

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:

- GEOG 5091 - Open Source Software for Geospatial Applications
- GEOG 5092 - GIS Programming and Automation
- 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.

URBAN AGRICULTURE OPTION

Option Advisor: Amanda Weaver

E-mail: amanda.weaver@ucdenver.edu

Required Courses

- ENVS 5450 - Urban Food and Agriculture: Perspectives and Research
- ENVS 5460 - Sustainable Urban Agriculture Field Study I

Total: 6 Hours

Electives

Choose two:

- ENVS 5340 - Equity & Culture in Science Education: Local/Global
- ENVS 5470 - Sustainable Urban Agriculture Field Study II
- GEOG 5060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 5085 - GIS Applications for the Urban Environment
- GEOG 5235 - GIS Applications in the Health Sciences
- GEOG 5640 - Urban Geography: Denver and the U.S.
- GEOG 5680 - Urban Sustainability: Perspectives and Practice

Total: 6 Hours

Option Total: 12 Hours

WATER QUALITY OPTION*

Option Advisor: Anne Chin

Telephone: 303-553-3958

E-mail: anne.chin@ucdenver.edu

Required Courses

- BIOL 5416 - Aquatic Ecology
- ENVS 5280 - Environmental Hydrology

Total: 6 Hours

Electives

Choose two:

- ENVS 5410 - Aquatic Chemistry
- CVEN 5333 - Surface Water Hydrology
- CVEN 5334 - Groundwater Hydrology
- CVEN 5335 - Vadose Zone Hydrology
- CVEN 5336 - Urban Runoff Quality and Quantity Modeling
- CVEN 5393 - Water Resources Development and Management

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 elective courses have prerequisites; student must have met these requirements in order to take the course.
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. Students may transfer up to 9 hours of approved graduate-level credit into the program. These courses must be approved by the Graduate Director and they may not replace core courses.
4. Students may take up to 6 credit hours of independent study approved by their advisor. If taking two independent study courses, these should be taken from separate faculty members. Independent study may not replace the core program requirements.
5. Students may not count 4000-level course toward electives in the program; this may be petitioned to the Graduate Committee in exceptional case.
6. By the end of the first semester, each student should identify and declare whether s/he is pursuing the thesis or non-thesis option. If intending to pursue the thesis option, the student should identify and gain agreement from a content advisor for guiding the thesis, filling out and submitting the appropriate departmental form.
7. Students may enroll in thesis preparation and writing hours only after submission of signed committee form, which requires approval of the thesis proposal.
8. Students will not receive a grade for thesis preparation and writing hours until the thesis is successfully defended.
9. Students should fill out and submit all relevant department forms for their files.
10. All work submitted for the environmental sciences options must have a grade of *B* (3.0) or better.
11. Students must follow the Graduate School deadlines for submission of paperwork for the graduation application, comprehensive exam, and any other deadlines. Links to these can be found on the GES/MS website.

12. Courses applied to either a certificate* or an MS degree may later be applied toward the other if all pertinent coursework is completed within a five-year time period.

* The Geospatial, Environmental Education, and Urban Agriculture options of the program lead towards independent graduate certificates. These certificates may be earned without entrance into the MS in environmental sciences program. (See the Geographic Information Science Graduate Certificate, Sustainable Urban Agriculture Graduate Certificate, and Environmental Science Education Graduate Certificate descriptions.)

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: Jian Yang
Email: Jian.Yang@ucdenver.edu
Telephone: 303.315.8423

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 of a financial accounting course taken within the last ten years with a "B-" grade or higher. Students are also expected to be knowledgeable in spreadsheet software.

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

Select 1 of the following 3 courses:

- FNCE 6380 - Futures and Options
- FNCE 6382 - Survey of Financial Derivatives
- FNCE 6410 - Real Options and Decisions Under Uncertainty

Specializations: (12 hours)

Students must complete one of the following specializations:

Finance Specialization

Students must select at least 3 courses with **FNCE/CMDT/RISK** prefix, numbered 6000 or higher. Remaining Finance Elective may be any of the following courses: **FNCE/CMDT/RISK** course numbered 6000 or higher, **ACCT 6140** Tax Planning for Managers, **ACCT 6340** Financial Statement Analysis, **ENTP 6824** Entrepreneurial Financial Management, **ECON 5803** Mathematical Economics, **ECON 5813** Econometrics I, **ECON 5823** Econometrics II, **ECON 6801** Advanced Mathematical Economics, **MATH 5792** Probabilistic Modeling, or **MATH 5390** Game Theory.

Financial Analysis and Management Specialization

Select three or four of the following courses:

- CMDT 6682 - Trading in Commodity and Financial Markets
- 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 6410 cannot be used towards specialization if taken in Finance core.
- 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
- RISK 6129 - Practical Enterprise Risk Management
- RISK 6809 - Principles of Risk Management & Insurance
- RISK 6909 - Corporate Risk Management
- RISK 6509 - Global Risk Management

If 3 courses completed from list above, select 1 course from the list below:

- ACCT 6140 - Tax Planning for Managers
- ACCT 6340 - Financial Statement Analysis
- CMDT 6582 - Commodity Supply Chain Management
- CMDT 6802 - Foundations of Commodities
- ENTP 6824 - Entrepreneurial Financial Management
- MATH 5390 - Game Theory

Financial and Commodities Risk Management Specialization

Select three or four of the following courses:

- CMDT 6682 - Trading in Commodity and Financial Markets
- 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 Derivatives *
- FNCE 6410 - Real Options and Decisions Under Uncertainty *
- *FNCE 6380, FNCE 6382, or FNCE 6410 cannot be used towards specialization if taken in Finance core.
- FNCE 6460 - Emerging Market Finance
- FNCE 6480 - Financial Modeling
- RISK 6129 - Practical Enterprise Risk Management
- RISK 6509 - Global Risk Management
- RISK 6809 - Principles of Risk Management & Insurance
- RISK 6909 - Corporate Risk Management

If three courses completed from above list, complete one course from the list below:

- CMDT 6582 - Commodity Supply Chain Management

- CMDT 6802 - Foundations of Commodities
- ECON 5823 - Econometrics II
- ECON 6801 - Advanced Mathematical Economics
- MATH 5351 - Actuarial Models
- MATH 5792 - Probabilistic Modeling

Risk Management and Insurance Specialization

Required Courses:

- RISK 6129 - Practical Enterprise Risk Management
- RISK 6809 - Principles of Risk Management & Insurance
- RISK 6909 - Corporate Risk Management

Quantitative Elective

Select 1 of the following:

- CMDT 6582 - Commodity Supply Chain Management
- CMDT 6682 - Trading in Commodity and Financial Markets
- CMDT 6802 - Foundations of Commodities
- ECON 5823 - Econometrics II
- ENTP 6824 - Entrepreneurial Financial Management
- FNCE 6340 - Business Firm Valuation
- FNCE 6350 - Financial Innovations
- FNCE 6360 - Management of Financial Institutions
- FNCE 6380 - Futures and Options *
- FNCE 6382 - Survey of Financial Derivatives *
- FNCE 6410 - Real Options and Decisions Under Uncertainty *

*FNCE 6380, FNCE 6382, or FNCE 6410 cannot be used toward specializations if taken in the Finance and Risk Management Core.

- FNCE 6411 - International Corporate Governance
- FNCE 6420 - Mergers and Acquisitions
- FNCE 6480 - Financial Modeling
- MATH 5351 - Actuarial Models
- MATH 5792 - Probabilistic Modeling
- RISK 6309 - Strategic Risk Management
- RISK 6409 - Employee Benefits and Workforce Risk Management
- RISK 6509 - Global Risk Management
- RISK 6800 - Special Topics: Cyber Risk Management & Cyber Warfare

There may be additional prerequisite courses for the ECON and/or MATH selections. Please check with those departments or the graduate advisors.

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 Derivatives
- FNCE 6410 - Real Options and Decisions Under Uncertainty

Finance and Risk Management Electives (6 hours)

Select any two FNCE/RISK 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

The Economics Specialization is a stand alone program which requires 30 credit hours

Total 30 credit hours

Global Energy Management MS

Program Advisor: Sarah Derdowski

Telephone: 303-315-8065

E-mail: Sarah.Derdowski@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 and Communications
- 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 Website 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.

Graduate Teacher Education Program: Master of Arts in Education and Human Development with a concentration in Teaching in Diverse Contexts

Return to: School of Education & Human Development

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

[Graduate Teacher Education Program Overview](#)

The Graduate Teacher Education is housed within the Education and Human Development Master of Arts degree with a concentration in Teaching in Diverse Contexts. The Graduate Teacher Education program prepares educators who are culturally affirming and responsive, collaborate closely with families and communities, and have the knowledge and skills to create engaging, relevant, and rigorous classroom communities where all students can achieve and grow. We work alongside our P-12 partner educators throughout the CU Denver Professional Development School Network comprised of over 20 urban schools across numerous districts in the Denver metro region. Teacher education students live the life of a teacher for an entire academic year while enrolled in the program through a series of residency internships in a professional development school. Ultimately our goal is that all teacher candidates-- whether their emphasis is elementary, secondary, or special education-- have the unique knowledge and skills to positively impact urban and diverse schools and act with a sense of urgency to support equity in education for all children. The Graduate Teacher Education Program is a nationally accredited program that exceeds expectations.

[Education Pathways](#)

The graduate teacher education program at CU Denver is designed to allow individuals with a minimum of a bachelor's degree to seek a master's degree along with an initial Colorado 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 Structure

The program admits teacher candidates in cohort groups that begin either in the summer or fall. The cohort model provides a unique learning community for candidates and engenders significant support for success. The program includes full time 1 - 1.5 year licensure plans for regular education and a 1.5 - 2 year full time option for initial special education and dual special education. Students enroll in course work at the university and clinical internships in one of CU Denver's professional development schools throughout the program. By enrolling in several courses and internships together, elementary, secondary, and special education teacher candidates are well prepared to support K-12 students with a wide range of diverse needs.

Once teacher candidates complete the licensure portion of the program, they are eligible to begin teaching. Candidates then complete the MA in Education and Human Development by taking one final three credit hour course. In addition, students have the option of pursuing an MA in Curriculum and Instruction in their choice of specialization (see MA Options below).

Clinical Experience in Professional Development Schools

While in the licensure portion of the program, teacher candidates intern in a professional development school for an entire academic year, gradually beginning with two days a week early on and increasing over time to five days per week by the end of the program. University courses are closely integrated with the sequence of clinical internship experiences providing teacher candidates with multiple opportunities to engage in the authentic work of teachers. Teacher candidates co-teach closely with practicing teachers in the school and gradually assume full responsibility for teaching by the end of the program. Elementary teacher candidates generally spend an entire academic year in a single partner elementary school, whereas secondary teacher candidates spend their internships in one of the partner middle schools and one of the partner high schools. Special education teacher candidates complete internships at multiple levels, P-12 due to the wide-span of their license that enables them to support students with special needs ages 5-21. The schools are located in several Denver metropolitan districts 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 school is supported by a site professor from the university one day per week and by a master teacher, called a site coordinator, who supports teacher candidates through their academic year of internships.

Assessment

Both the coursework and the internship experiences have been created to align with the Colorado Teacher Quality Standards, as well as frameworks for culturally and linguistically responsive instruction

and Universal Design for Learning. Students in all programs engage in a common set of learning opportunities and internship assessments. They also engage in Program Level Assessments at different stages of the program. Colorado mandates that all teacher education programs be "performance based" in order to recommend candidates completing the program for licensure; thus all candidates in the Urban Community Teacher Education program must demonstrate proficiency in both the university-based coursework and their internships.

Programs of Study

Due to the complex nature of teacher preparation that is governed by state and national accreditation and legislative mandates that can change from year to year, please see current programs of study in the teacher education handbook.

Master's Degree Options

The Graduate Teacher Education Program views 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 complete the MA in Education and Human Development with a concentration in Teaching in Diverse Contexts by taking one final three credit hour course.

Students may also pursue an MA in Curriculum & Instruction with multiple options to obtain specialized knowledge in specific areas of curriculum & instruction like Literacy & Language, Culturally & Linguistically Diverse Education, STEM, Special Education, and others. These options typically require 12-15 additional credits and can also be coupled with added endorsements from the Colorado Department of Education. Students should refer to the information for the Curriculum and Instruction program for specifics.

Requirements for Admission

Admission Deadline: March 1 for both summer and fall start dates

Graduate Teacher Education Information Sessions

All prospective teacher candidates are strongly encouraged to attend an information session before applying to the program. Information sessions are typically held both face-to-face and through online webinars lasting approximately 60-90 minutes (check the SEHD website for exact dates and times). An advisor will be available to review prospective students' transcript and provide pre-admission advising. To more effectively facilitate this process, please bring copies of all transcripts with you.

Prerequisite Content Review

Teacher licensure requires that all initial licensure candidates hold a degree or have sufficient content knowledge obtained through university coursework aligned to the licensure area the candidate will be teaching. A prerequisite content review of a candidate's bachelor's degree transcript is required to determine if the candidate meets the minimum requirements or will have to take additional prerequisite content courses.

Graduate Teacher Education Admission Requirements

- Minimum undergraduate cumulative GPA of 3.0

- Candidates with an undergraduate GPA less than 3.0 are required to take the GRE, with a combined score of 150 each on verbal and quantitative sections; or the Miller Analogies Test, with an average score of 400-600, before consideration to admittance.
- Verification of passing official scores for PLACE or PRAXIS content exam specific to their licensure area. Consult the Colorado Department of Education website for specific testing information
- A complete application which can be obtained online at www.ucdenver.edu/education which includes transcripts, essays, recommendations, and an interview.

Health Administration MS

Program Director: Errol L. Biggs

Telephone: 303-315-8851

E-mail: errol.biggs@ucdenver.edu

The goal of the master of science in health administration degree is to prepare students, 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)

Advisor will evaluate transcript for possible waivers in the CBK.

- BUSN 6521 - Leading Individuals and Teams
- BUSN 6530 - Data Analysis for Managers
- BUSN 6550 - Analyzing and Interpreting Accounting Information
- 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 6561 - Marketing Management (Health Section)

- BUSN 6621 - Applied Economics for Managers (Health Section)
- BUSN 6711 - Strategic Management (Health Section) *This course is intended to be taken in your last Spring semester.
- HLTH 6010 - Health Care Systems
- HLTH 6770 - Healthcare Quality and Outcomes
- HLTH 6911 - Health Field Studies *This course is intended to be taken in your last Spring semester. Pre-req: HLTH 6010 or consent of instructor, minimum 3.0 cumulative GPA.

C. Health Administration Information Technology Elective: (3 hours)

Select one of the following courses:

- HLTH 6071 - Introduction To Health Information Technology
 - HLTH 6072 - Management of Healthcare Information Technology
- Please note: 2nd Health Administration Information Technology course may be used as Health Administration elective

D. Health Administration Electives: (6 hours)

Select two of the following courses:

- ENTP 6801 - Building Biotechnology
 - ENTP 6848 - Leadership in New Ventures
 - HLTH 6740 - Profiles in Health Care
 - HLTH 6070 - International Health Policy and Management
 - HLTH 6075 - International Health Travel Study
- * Students can also select HLTH 6071 or HLTH 6072 if not used as a Health Administration Information Technology Elective.

Notes and Restrictions

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 from the program director.

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.

Historic Preservation MS

► Graduate School Rules apply to this program

Program Director: Christopher Koziol

Office: CU Denver Building, 3200

Telephone: 303-315-5874

E-mail: christopher.koziol@ucdenver.edu

The Master of Science in Historic Preservation (MSHP) is a 45 semester-hour program, usually completed in 15 or 18 months (three regular semesters and possibly part or all of one summer). It is designed to accommodate the background and needs of both those students with substantial experience and those new to the field. The course of study is for students seeking training in spatial, technical and design aspects of the broader field; it encompasses architecture, cultural landscapes, preservation, planning, building technology, project management, documentation, interpretation and representation.

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 master of science in historic preservation program 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 benefited from some previous exposure to:

1. Mechanical drawing/sketching
2. CAD/BIM graphics
3. Graphics software such as Adobe Creative Suite

These competencies can be demonstrated by previous coursework 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 upon matriculation to the MSHP 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 semester hours (up to 15 semester 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. Students holding a master's degree in Architecture, Urban Planning or Landscape Architecture are typically awarded 12 to 15 semester hours of advanced standing.

Undergraduate Course Work

Undergraduate course work substantively equivalent to a MS HP 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 semester 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:

- 12 semester hours of core courses in preservation
- 6 hours in approved Design History courses
- 18 hours of electives
- 9 hours capstone requirement

Students enrolling full-time in the 45 semester 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 degree in historic preservation.

Our program is compliant with National Council of Preservation Education Standards.

Required Core Courses

Core Preservation courses (choose at least 4):

- HIPR 6010 - Preservation Theory and Practice
- HIPR 6110 - Regionalisms & the Vernacular
- HIPR 6210 - Historic Buildings in Context
- HIPR 6310 - Documentation, Analysis, Representation
- HIPR 6410 - Urban Conservation: Context for Reuse
- HIPR 6510 - Building Conservation
- HIPR 6610 - Reading the City

Choose at least 2 approved Design History courses (offerings vary); some examples are:

- ARCH 6210 - History of American Architecture
- LDAR 5521 - History of Landscape Architecture
- LDAR 6686 - Special Topics: Landscape Architecture
- URBN 6640 - History of the City
- URPL 6350 - Form and Formation of Cities

Total: 18 Hours

Electives

Choose 18 semester hours total, at least 9 semester hours from one of the groups below. (All courses = 3 semester hours unless otherwise noted)

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.

- PUAD 5110 - Seminar in Nonprofit Management
- PUAD 5115 - Effective Grant Writing for Nonprofit and Public Sector Managers
- URBN 6642 - Design Policy
- URBN 6641 - Design Process
- PUAD 5625 - Local Government Management
- PUAD 5626 - Local Government Politics and Policy
- HIPR 6610 - Reading the City
- HIPR 6930 - Internship
- ARCH 6450 - Pre-Design

Or Non-Western Design history courses as available

History

- GEOG 5350 - Environment and Society in the American Past
- HIST 5236 - Colorado Mining and Railroads
- HIST 5240 - National Parks History
- HIST 5242 - Oral History
- HIST 5229 - Colorado Historic Places
- HIST 5243 - Public History Administration
- HIST 5228 - Western Art and Architecture
- HIST 5244 - Interpretation of History in Museums: Exhibits and Education

- HIST 5231 - History in Museums
- HIST 5810 - Special Topics
- HIST 5234 - Introduction to Public History
- HIST 5232 - Historic Preservation

Capstone Work

Choose either 1. Professional Project or 2. Thesis and additional requirements.

1. HIPR 6851 - Professional Project (3 semester hours)
Preceded by ARCH 6450 Pre-Design

AND

HIPR 6930 Internship

OR

Preceded by HIPR 6170 Preservation Design Studio

OR

Preceded by pre-approved travel education

2. HIPR 6951 - Thesis (6 semester hours)
Preceded by LDAR 6949 - Research Tools & Methods (3 semester hours)

Total: 9 hours

History MA

► Graduate School Rules apply to this program

The master of arts in history requires 37 semester hours (12 courses plus enrollment for one-credit hour in preparation for the Comprehensive Examination). Students who entered the program before fall 2015 have a 36-semester hour requirement and need only enroll for the additional one-credit hour Comprehensive Examination if they are not enrolled in anything else when they take that examination. 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. Students will also need a third advisor for the comprehensive examinations. This third advisor is typically in their major field and should always be consulted during preparation for the examinations.

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 that 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 the Public History and US History fields. Students will draw on these readings for their comprehensive exams. Students working 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 or methodological 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. Note that students may select their concentrations and the options for minors from the same lists, below.

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. Note that students may select their concentrations and the options for minors from the same lists, below.

[Regional Concentrations/Minors](#)

- American West
- Britain
- East Asia
- Germany
- Islamic World
- Latin America
- Western Europe

[United States History Chronological Concentrations/Minors](#)

- Colonial and Federal
- Nineteenth Century
- Twentieth Century

[Public History Concentrations](#)

- Historic Preservation
- Museum Studies
- State and Local History

[Topical Concentrations/Minors](#)-these can be regional or global and must be negotiated with your field advisors.

- Colonialism and Imperialism
- Cultural and Social History
- Diplomatic History and Foreign Policy
- Economic and Business History
- Environmental History
- Gender, Women and Sexuality

- Globalization
- Intellectual History
- Labor Nation and State Politics
- Race and Ethnicity
- Science, Medicine and Technology
- Urban History
- War and Revolution

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)

Major electives are made up of courses in the major and concentration, including readings courses, that 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

Minor 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: 37 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. Beginning in fall 2015, students must enroll in HIST 6940, Comprehensive Examination, a one-credit requirement connected to faculty commitment to preparing students for their examination.

- HIST 6940 - Comprehensive Exam

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 intend to become 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 will enroll for six credit hours in HIST 6950 over one or more semesters to complete their theses. Before registering for HIST 6950, students should have a thesis proposal and initial bibliography approved by their major advisor.

A thesis is evaluated by a committee of three faculty, 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 most 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 three credit hours 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 students who intend to become teachers 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

General rules for admission into the Graduate School apply to admission into the MH program in addition to the following:

- evidence of a bachelor's degree
- two official copies of transcripts from all community colleges, colleges, and universities attended
- 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 CU Denver graduate-level courses as non-degree seeking students (unclassified student with a bachelor's degree) if they:

1. Wish to strengthen their record in order to demonstrate that they could successfully complete graduate-level courses in the program
- or-
2. Wish to start coursework toward the program prior to completing their application, with the understanding that taking courses does not guarantee admission.

Up to 12 semester hours of CU Denver 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 non-degree graduate student status, see the Information for Graduate Students section of this catalog. In the case of CU Denver graduate students transferring to the MH program, previous course work may be accepted as appropriate to the MH plan of study.

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 is a 36-semester-hour program, of which 30 hours must meet all specifications of the Graduate School. Throughout their work toward the MH 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 a general MH degree or focus their studies and course work on one of two tracks: Philosophy and Theory OR Visual Studies or with the add-on of a Women's and Gender Studies Graduate Certificate. Each option is detailed below. All courses credited toward the MH degree must be taken at CU Denver (a maximum of 12 graduate semester hours may be transferred from other institutions after matriculating into the MH program, subject to the MH director's approval).

Each student's program is supervised by an MH 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, two 4000-level undergraduate courses, and one internship 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 university departments. All students must pass an oral comprehensive exam on the project or thesis 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 Required Core seminars for the MH degree:

- HUMN 5025 - Methods & Texts of Interdisciplinary Humanities & Social Theory
(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 21-24 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 faculty advisor.

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 wishing to count credits accrued from a study abroad program while pursuing the MH must follow the rules of the Graduate School and must have approval of the program director in advance of studying abroad.

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, must be completed at the end of the program. In order to proceed with a thesis or project, all students must submit to the program a proposal approved by their three faculty committee and the MH program director.

- HUMN 5950 - Master's Thesis
- HUMN 5960 - Master's Project

Total: 3-6 Hours

Oral Exam

An oral exam defending the project or thesis before a committee of three faculty members must be passed in order to graduate.

General MH Degree Total: 36 Hours

OPTIONAL MH TRACKS

Students may also focus in one of the tracks in the Master of Humanities program: Philosophy and Theory or Visual Studies. Tracks allow students to concentrate their studies in a more specifically defined field of interest. In addition to these tracks, MH students may also pursue a Women's and Gender Studies Graduate Certificate in conjunction with the MH degree and/or one of its tracks. In addition to the three MH core required courses, students must fulfill the minimum track or graduate certificate 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 (See description above)

Total: 9 hours

Additional Requirements

- Philosophy/theory methods course (3 hours). Must be approved by the Master of Humanities Director or Associate Director
- Minimum of 12-15 credits of focused course work in philosophy/theory related courses (see suggested electives below)
- 3 credit project or 6 credit thesis on a visual studies topic, written in consultation with the required three person committee

Total: 21 hours

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 (see descriptions above)

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 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 second or third semester)

- 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 three 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.

Information and Learning Technologies MA

Lawrence Street Center, 701

Telephone: 303-315-6300

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E-mail: education@ucdenver.edu

Website: www.ucdenver.edu/education

Faculty

Information about Information ILT faculty is available online at www.ucdenver.edu/education.

Master's Degree

The Information and Learning Technologies (ILT) master's program helps people design and use various tools and media for learning, teaching, and professional leadership. Applying sound principles of learning, instructional and media design, and professional development, you will integrate a variety of learning strategies and technologies-such as digital media, eLearning, digital storytelling, social media and networking, games, and smart and mobile tools-into your educational responsibilities in school and workplace settings. Throughout the program you will engage in assessment and evaluation activities to improve services, be accountable for outcomes, and develop professional identities as thought leaders in your professional communities of practice.

The ILT master's program has three tracks from which to choose based on your professional goals:

- The Instructional Design and Adult Learning track prepares people to work in adult learning settings such as business, higher education, healthcare, nonprofits or government.
- The eLearning Design and Implementation track prepares people to teach and facilitate learning in eLearning environments and prepares people to develop online courses, experiences, and digital learning materials.
- The K-12 Teaching track helps teachers integrate technologies into schools and classrooms with a focus on supporting student learning and improving teaching practices. Licensed teachers may apply for an added endorsement in instructional technology through the Colorado Department of Education upon K-12 program and exam completion.

Technology Expectations

The ILT program uses computers and related technologies either as a focus of or a tool for learning, teaching, and professional development work. Students are expected to use their campus email

accounts and check them frequently. Students need convenient, consistent, and reliable access to Internet-connected computers. In addition to textbooks, software purchases may be required or recommended for specific courses.

Program Requirements

Instructional Design and Adult Learning

In this track, you complete 30 graduate semester hours of coursework from a set of core courses and approved electives within the ILT program. This track is designed to help you develop skills for creating quality instructional materials and professional-learning experiences that help adult-learning audiences learn and perform better on the job; throughout the program, you will apply learning, instructional design (ID), and professional-development principles to the creation of digital and web resources, multimedia presentations, job aids, and online-learning modules. These skills are in high demand in corporate, healthcare, government, non-profit, and higher education settings. You will experience interactive learning, hands-on projects, and collaborative teamwork as you develop expertise in core ID skills: creating curriculum, evaluating program quality, encouraging innovation, and leading organizations toward productive change and growth. Like all ILT students, you will create an online portfolio--referred to as a base camp--that helps you establish your professional web presence and digital footprint as a thought leader and showcase your instructional-design accomplishments to employers and other professionals. The entire program takes about two years to complete.

Please consult the ILT Current Student Resources website for complete program requirements.

eLearning Design and Implementation

In this fully online track, you complete 30 graduate semester hours of coursework from a set of core courses and approved electives within the ILT program. The focus of this track is on the planning, design, development, delivery, facilitation and evaluation of digital and online learning resources, experiences, and programs for higher education, K-12, and professional-learning (corporate, healthcare, government, non-profit) audiences; throughout the program, you will apply learning, instructional and media design, and professional-development theory to the creation of digital and online instructional products and experiences. You will experience interactive learning, hands-on projects, and collaborative teamwork while learning to create quality eLearning products and experiences and while encouraging innovation and positive change within your workplace. You will create an online portfolio--referred to as a base camp-- that helps you establish your professional web presence and digital footprint as a thought leader, showcase your accomplishments, and share your work with your professional communities of practice. The entire program takes about two years to complete.

Please consult the ILT Current Student Resources website for complete program requirements.

K-12 Teaching

Students in this ILT track may select a 30graduate semester hour MA and/or an endorsement program in instructional technology (24graduate semester hours). For the full Master of Arts degree, you complete coursework consisting of a required core and approved electives. Courses in the K-12 option focus on the practical needs of teachers in their integration of technology and on ways to give leadership and professional-development opportunities to your school and district. The plan of study is accredited by NCATE and AECT [SR1] and is designed in line with standards of the Colorado Department of Education.

You will create an online portfolio--referred to as a base camp--that serves as a learning resource for your students, colleagues, and other professionals. Licensed teachers may complete an endorsement-only program in instructional technology consisting of 24 graduate semester hours. In addition to coursework, a passing score on the Instructional Technology PLACE content exam is also required to apply for the endorsement through the Colorado Department of Education.

Note: The courses in this program are fully online with exception of one blended-learning course. Please consult the ILT Current Student Resources website for complete program requirements.

Comprehensive Examination for all ILT Students

The comprehensive exam consists of a professional portfolio--referred to as a base camp--wherein students demonstrate program competencies through work products and related accomplishments. The base camp is created throughout the ILT program and submitted for faculty review during the final semester. For more information, see the ILT Current Student Resources website.

Information Systems MS

Program Director: Jahangir Karimi

Telephone: 303-315-8430

E-mail: Jahangir.Karimi@ucdenver.edu

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. Candidates for the MS degree are not required to take a comprehensive examination or to complete a thesis in the major field.

Information Systems Specializations

The specializations for the MS in Information Systems are designed to provide the fundamental knowledge necessary for a career as an IS professional. 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.

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.

Accounting Prerequisites: (6 hours)

Advisor will evaluate transcript for possible waiver of the prerequisites.

- BUSN 6550 - Analyzing and Interpreting Accounting Information
- ACCT 6030 - Financial Accounting

Information Systems AISAAC Course Requirements: (12 Hours)

- ISMG 6060 - Analysis, Modeling and Design
- ISMG 6080 - Database Management Systems
- ISMG 6180 - Information Systems Management and Strategy
- ISMG 6220 - Business Intelligence Systems and Analytics

AISAAC Common Course Requirements: (12 hours)

- ISMG 6040 - Business Process Management
- ISMG 6830 - IT Governance and Service Management
- ACCT 6020 - Auditing Theory
- ACCT 6510 - Accounting and Information Systems Processes and Controls
- OR**
- ISMG 6510 - Accounting and Information Systems Processes and Controls

AISAAC Electives: (6 hours)

Select two of the following courses:

- ACCT 6340 - Financial Statement Analysis
- ACCT 6360 - Fraud Examination
- ACCT 6470 - Internal Auditing
- ACCT 6620 - Advanced Auditing
- 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.

Business Intelligence Required Courses: (6 hours)

- ISMG 6080 - Database Management Systems
- ISMG 6220 - Business Intelligence Systems and Analytics

Business Intelligence Electives: (15 hours)

Select five of the following courses:

- ISMG 6180 - Information Systems Management and Strategy
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6450 - IT Project Management
- ISMG 6470 - Text Data Analytics and Predictive Modeling
- ISMG 6480 - Data Warehouse and Administration
- ISMG 6810 - Business Intelligence in Healthcare
- ISMG 6820 - Business Intelligence and Financial Modeling
- ISMG 6830 - IT Governance and Service Management
- BANA 6660 - Predictive Modeling with Big Data

Information Systems Electives: (6 hours)

Any course numbered 6000 or higher with an ISMG prefix or an internship (by petition). Students pursuing an additional specialization in GIS should fill this requirement with CVEN 5381, CVEN 5382, CVEN 5383, CVEN 5384, CVEN 5385, or CVEN 5386.

Free Elective: (3 hours)

Any course numbered 6800 or higher with BUSN prefix or any course numbered 6000 or higher with prefix of ACCT, BANA, CMDT, ENTP, FNCE, INTB, ISMG, MGMT, MKTG, MTAX, or RISK. *Students pursuing an additional specialization in GIS should fill this requirement with CVEN 5381, CVEN 5382, CVEN 5383, CVEN 5384, CVEN 5385, or CVEN 5386.

NOTE: Some of these courses have prerequisites of a BUSN course that may not be listed in your degree plan. Check with an academic advisor to see if it is possible to waive the prerequisite based on previous coursework.

Digital Health 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.

Information Technology Required Courses: (12 hours)

- ISMG 6060 - Analysis, Modeling and Design
- ISMG 6080 - Database Management Systems
- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6320 - Innovative Health Information Technologies

Bio-innovation and Entrepreneurship Electives: (9 hours)

Select 3 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

Health and Information Technology Electives: (9 hours)

Select 3 of the following courses:

- HLTH 6071 - Introduction To Health Information Technology
- HLTH 6072 - Management of Healthcare Information Technology
- ISMG 6020 - .Net Programming Fundamentals
- ISMG 6180 - Information Systems Management and Strategy
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6460 - Emerging Technologies
- ISMG 6810 - Business Intelligence in Healthcare

Enterprise Risk Management (ERM) Specialization

This specialization focuses on information technology as the primary driver of business strategy. Coursework focuses on the strategic, technological, financial and organizational issues involved with the effective management of information technology within an enterprise.

Prerequisites (6 hours)

Advisor will evaluate transcripts for possible waivers of the prerequisites.

- BUSN 6530 - Data Analysis for Managers
- BUSN 6620 - Applied Economics for Managers

Enterprise Risk Management Required Courses: (15 hours)

- BUSN 6550 - Analyzing and Interpreting Accounting Information
- BUSN 6640 - Financial Management
- ISMG 6180 - Information Systems Management and Strategy
- RISK 6809 - Principles of Risk Management & Insurance
- RISK 6909 - Corporate Risk Management

Enterprise Risk Management Electives: (15 hours)

Select five of the following courses:

- RISK 6129 - Practical Enterprise Risk Management
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6450 - IT Project Management
- ISMG 6460 - Emerging Technologies
- ISMG 6820 - Business Intelligence and Financial Modeling
- ISMG 6830 - IT Governance and Service Management
- RISK 6509 - Global Risk Management
- RISK 6309 - Strategic Risk Management
- RISK 6800 - Special Topics: Cyber Risk Management & Cyber Warfare

Information Systems/Risk Management Elective: (3 hours)

Any course numbered 6000 or higher with an ISMG prefix or FNCE/RISK prefix or an internship (by petition).

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, BANA, CMDT, ENTP, FNCE, HLTH, INTB, ISMG, MGMT, MKTG, or RISK.

NOTE: Some of these courses have prerequisites of a BUSN course that may not be listed in your degree plan. Check with an academic advisor to see if it is possible to waive the prerequisite based on previous coursework.

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.

Enterprise Technology Management Required Courses: (6 hours)

- ISMG 6040 - Business Process Management
- ISMG 6180 - Information Systems Management and Strategy

Enterprise Technology Management Electives: (15 hours)

Select five of the following courses:

- ISMG 6080 - Database Management Systems
- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6220 - Business Intelligence Systems and Analytics
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6450 - IT Project Management
- ISMG 6460 - Emerging Technologies
- ISMG 6830 - IT Governance and Service Management

Information Systems Electives: (6 hours)

Select two courses numbered 6000 or higher with an ISMG prefix or an internship.

*Students pursuing an additional specialization in GIS should fill this requirement with CVEN 5381, CVEN 5382, CVEN 5383, CVEN 5384, CVEN 5385, or CVEN 5386.

Free Elective (3 hours)

Any course numbered 6800 or higher with BUSN prefix or any course numbered 6000 or higher with prefix of ACCT, BANA, ENTP, FNCE/RISK/CMDT, INTB, ISMG, MGMT, or MKTG.

*Students pursuing an additional specialization in GIS should fill this requirement with CVEN 5381, CVEN 5382, CVEN 5383, CVEN 5384, CVEN 5385, or CVEN 5386.

NOTE: Some of these courses have prerequisites of a BUSN course that may not be listed in your degree plan. Check with an academic advisor to see if it is possible to waive the prerequisite based on previous coursework.

Health Information Technology Management Specialization

Recently, the healthcare 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 healthcare crisis. The courses within this specialization covers the evolving roles and importance of IT in healthcare industry; the innovative IT applications for delivering healthcare with reduced cost and increased quality; the management of healthcare 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.

Health Information Technology Required Courses (6 hours)

- ISMG 6060 - Analysis, Modeling and Design
- ISMG 6080 - Database Management Systems

Health Information Technology Electives: (15 hours)

Select five of the following courses:

- HLTH 6071 - Introduction To Health Information Technology
- HLTH 6072 - Management of Healthcare Information Technology
- ISMG 6220 - Business Intelligence Systems and Analytics
- ISMG 6320 - Innovative Health Information Technologies
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6810 - Business Intelligence in Healthcare

Information Systems Electives (6 hours)

Select any two courses numbered 6000 or higher with an ISMG prefix or an internship.

*Students in the Health IT specialization may also select a course numbered 6000 or higher with a HLTH prefix with approved petition (restricted enrollment).

Free Elective: (3 hours)

Any course numbered 6800 or higher with BUSN prefix or any course numbered 6000 or higher with prefix of ACCT, BANA, CMDT, ENTP, FNCE, INTB, ISMG, MGMT, MKTG, MTAX, or RISK.

Technology Innovation and Entrepreneurship (TIE) Specialization

Technological Innovation and Entrepreneurship Specialization is designed to prepare students for successful careers in innovation-related roles, allowing them to organize, develop, and commercialize information technology-based innovation in existing firms or to create new technology-based ventures.

This specialization prepares students to evaluate opportunities and manage the process of innovation and builds the necessary knowledge and skills that enable leaders to seize market opportunities and drive strategic management and intelligent decision making. It includes courses in both Information Systems and Entrepreneurship and may also include an optional emphasis in Bio-innovation.

Technology Innovation and Entrepreneurship Required Courses: (12 hours)

- ENTP 6842 - New Concept Development
- ENTP 6020 - Business Model Development & Planning
- 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 6620 - New Venture Operations and Project Management
- ENTP 6822 - Legal and Ethical Issues of Entrepreneurship
- ENTP 6824 - Entrepreneurial Financial Management
- ENTP 6826 - International Entrepreneurship
- ENTP 6848 - Leadership in New Ventures

If two ENTP courses were selected above, select four of the following Information Systems electives; if three ENTP courses were selected above, select three of the following Information Systems electives:

- ISMG 6020 - .Net Programming Fundamentals
- ISMG 6060 - Analysis, Modeling and Design
- ISMG 6080 - Database Management Systems
- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6180 - Information Systems Management and Strategy
- ISMG 6220 - Business Intelligence Systems and Analytics
- 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.

Web and Mobile Computing Required Courses: (6 hours)

- ISMG 6060 - Analysis, Modeling and Design

- ISMG 6080 - Database Management Systems

Web and Mobile Computing Electives: (15 hours)

Select five 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 6450 - IT Project Management
- ISMG 6480 - Data Warehouse and Administration

Information Systems Elective: (6 hours)

Select any two courses numbered 6000 or higher with an ISMG prefix or an internship (by petition).

*Students pursuing an additional specialization in GIS should fill this requirement with CVEN 5381, CVEN 5382, CVEN 5383, CVEN 5384, CVEN 5385, or CVEN 5386.

Free Elective: (3 hours)

Any course numbered 6800 or higher with BUSN prefix or any course numbered 6000 or higher with prefix of ACCT, BANA, CMDT, ENTP, FNCE, INTB, ISMG, MGMT, MKTG, MTAX, or RISK.

*Students pursuing an additional specialization in GIS should fill this requirement with CVEN 5381, CVEN 5382, CVEN 5383, CVEN 5384, CVEN 5385, or CVEN 5386.

NOTE: Some of these courses have prerequisites of a BUSN course that may not be listed in your degree plan. Check with an academic advisor to see if it is possible to waive the prerequisite based on previous coursework.

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 Business Intelligence, Enterprise Technology Management, OR Web and Mobile Computing 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 with a Business Intelligence, Enterprise Technology Management or Web and Mobile Computing Specialization, as well as the requirements below.

- CVEN 5381 - Introduction to Geographic Information Systems (Required)

Select 3 of the following courses:

- 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

Integrated Sciences MIS

► Graduate School Rules apply to this program

Program Requirements

The Master's program in Integrated Sciences (MIS) is designed to provide a broad-based, content-rich curriculum that integrates knowledge and methods from natural and physical sciences, mathematics, and computer science disciplines. MIS is a 30 semester-hour interdisciplinary program in which students take courses from two or three disciplines, identify a faculty mentor, and complete a Master's project or thesis. The signature aspect of the program is that the capstone experience must truly integrate the interdisciplinary content into a unified program of research.

Specifically, students are required to complete a coherent selection of classes in a minimum of two areas and a maximum of three areas within the disciplines of biology, chemistry, computer science, environmental sciences, geology, mathematics or physics. Each student must meet with the Program Director within the first semester of study to develop a program goal statement, which is used to guide his or her individualized curriculum. All classes applied 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.

With sufficient justification and with approval from the Program Director, students may take a maximum of 6 semester-hours outside of the program's areas of concentration. In addition, a maximum of 6 semester-hours of MINS independent study/internship coursework may be applied to the degree. All such contracts must be approved by the Program Director.

In accordance with Graduate School Rules, a minimum of 24 semester-hours must be at the graduate level (5000+). Under exceptional circumstances, up to 6 semester-hours may be taken at the 4000 level, with prior approval from 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.

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 Program Director no later than two semesters following admission to the program.

Core Requirement

Students are required to enroll in MINS 5200, Research Methods in Interdisciplinary Science, within their first year of the program. This course serves as an introduction to the program and helps students to develop research skills and to further their professional development. This course is offered in the fall semester only.

MINS 5200 Research Methods in Interdisciplinary Science

This course introduces methods used in interdisciplinary research in the physical and natural sciences, mathematics, and computer science and prepares students for developing research-based Master's project/thesis proposals. Topics include the scientific method and ethics, experimental design, data collection and analysis, literature searches, evaluation of scientific literature, scientific writing, and oral presentation. Prereq: Graduate Standing or Instructor Permission.

Concentration and Depth Requirements

The student must designate one area of concentration (the primary area of study) and one or two depth areas (the secondary and, if applicable, tertiary areas of study) within the disciplines of biology, chemistry, computer science, environmental sciences, geology, mathematics or physics. An interdisciplinary area of study (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 and a minimum of six semester hours in each depth area.

Project or Thesis Requirement

The program provides students with two options as their capstone experience, either a project or a thesis, depending on their academic and professional goals. All students must conduct independent research integrating coursework from the disciplines in their program of study. The research is conducted as either a project (requiring 3-4 semester-hours of MINS 5960) or a thesis (requiring 4-6 semester-hours of MINS 5950), and is presented to their examination committee in both written and oral forms. The student must successfully defend their project/thesis in an oral examination (defense) in order to graduate. Prior to enrolling in Project or Thesis hours, all students must submit a proposal approved by three faculty members (one of whom is their graduate faculty advisor) and the Program Director.

- MINS 5950 - Master's Thesis
- MINS 5960 - Master's Project

Degree Total: 30 Hours

International Business MS

Program Director: Manuel G. Serapio, Jr.

Telephone: 303-315-8436

E-mail: Manuel.Serapio@ucdenver.edu

An MS in International Business (MSIB) from the University of Colorado Denver opens opportunities for dynamic careers in global business. MSIB students gain cutting-edge knowledge and skills to help them conduct business across borders.

Our innovative MSIB curriculum combines solid grounding in business foundations and knowledge of international business environments.

Our degree emphasizes action learning such as live case studies, international consulting projects and internships, and study-abroad trips.

The University of Colorado Denver is the only Colorado university, and one of just 17 universities nationwide, granted the U.S. Department of Education's prestigious designation as a Center for International Business Education Research (CIBER), an honor earned in large part through the excellence of the international business program.

The MS program in International Business requires the completion of the following:

Prerequisites: (3 hours)

Select 1 of the following courses: BUSN 6520, BUSN 6550, BUSN 6560, BUSN 6620, or BUSN 6640.

Prerequisite choices should be based on course choices in the International Core courses and electives below. *(Advisors will evaluate transcripts for possible prerequisite waivers)*

Students who choose to take classes 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
- CAPSTONE COURSE - THIS COURSE IS INTENDED TO BE TAKEN NEAR THE END OF YOUR PROGRAM.

B. International Functional Core: (6 hours)

Select one course from the International Qualitative Requirement list below **and** select one course from the International Quantitative Requirement list below.

Select one course from the following International Qualitative Requirement list:

- ENTP 6826 - International Entrepreneurship
- INTB 6020 - Cross-Cultural Management
- INTB 6022 - International Business Negotiations

- INTB 6024 - International Trade Finance and Management
INTB 6024 may be used to satisfy **either** the International Qualitative or Quantitative Requirement.
- INTB 6026 - International Marketing
- INTB 6040 - Managing Global Talent
- INTB 6094 - Marketing Issues in the Chinese Environment
- INTB 6500 - International Business Consulting
- INTB 6800 - Special Topics in International Business

Select one course from the International Quantitative Requirement list below:

- INTB 6370 - International Accounting
- INTB 6372 - International Financial Management
- INTB 6411 - International Corporate Governance
- INTB 6460 - Emerging Market Finance
- MTAX 6430 - International Taxation
- RISK 6800 - Special Topics: Cyber Risk Management & Cyber Warfare

D. International Elective: (15 hours)

Select any course numbered 6000 or higher with an INTB prefix **or** any graduate level business course that is cross-listed with an INTB prefix. May also select from the following: ACCT 6430 International Taxation, ENTP 6826 International Entrepreneurship, ENTP 6827 Global Action Projects for International Entrepreneurship or RISK 6800 Special Topics: Cyber Risk Management and Cyber Warfare. Travel study courses offered by the Business School also apply.

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, BANA, CMDT, ENTP, FNCE, INTB, ISMG, MGMT, MKTG, MTAX, or RISK. Note: students 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

Return to: College of Architecture and Planning

[Prerequisites](#)

Students are expected to have achieved a basic level of computer literacy prior to enrolling in the first semester of classes. The department offers a required graphics workshop for students who do not have a background in drawing or computer graphics. The workshop is scheduled each year prior to the beginning of fall semester.

Program Requirements

The landscape architecture program offers first professional and post-professional graduate courses leading to the degree master of landscape architecture (MLA). The program is fully accredited by the Landscape Architecture Accreditation Board (LAAB) and recognized by the Council of Educators in Landscape Architecture (CELA).

- The first-professional degree program requires a six-semester sequence of course work totaling 90 semester hours.
- The post-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 60 semester hours. Advanced standing is based on prior academic accomplishment.
- Students completing the College of Architecture and Planning's BSArch degree or an undergraduate design degree at another institution may be given advanced standing in the three-year program. Advanced standing is based on prior academic accomplishment.

Course Sequence (First Professional Degree)

(90-semester-hour MLA for students without a professional degree in landscape architecture or related professional field)

The curriculum consists of core and elective course work. Core courses are grouped into five components:

	<i>Semester hours</i>
Design Studios	36
History and Theory	12
Site Works	12
Media	9
Critical Practice	6
<i>Total core courses</i>	75
MLA Electives	9
General Electives	6
<i>Total electives</i>	15
<i>Total courses</i>	90

Typical 90-semester-hour sequence of courses for the first professional MLA degree (subject to change)

First Year

Fall

- LDAR 5510 - Graphic Media in Landscape Architecture
- LDAR 5521 - History of Landscape Architecture
- LDAR 5540 - Introduction to GIS
- LDAR 5572 - Landscape Ecology
- LDAR 5500 - Introductory Landscape Architecture Design Studio

Total: 15 Hours

Spring

- LDAR 5502 - Landscape Architecture Design Studio 2
- LDAR 5532 - Landform Manipulation
- LDAR 6630 - Site, Society and Environment
- LDAR 6641 - Computer Applications in Landscape Architecture

Total: 15 Hours

Second Year

Fall

- LDAR 5503 - Landscape Architecture Design Studio 3
- LDAR 6620 - Landscape Architecture Theory and Criticism
- LDAR 6631 - Landscape Construction Materials and Methods
- LDAR 6670 - Plants in Design

Total: 15 Hours

Spring

- LDAR 6604 - Landscape Architecture Design Studio 4
- LDAR 6605 - Landscape Architecture Design Studio 5

- LDAR 6949 - Research Tools & Methods
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 (Advanced Professional Degree)

(60-semester-hour MLA for students with a professional degree in landscape architecture or related disciplines)

The curriculum typically requires 60 semester hours and two years of full-time study. The core curriculum consists of three groups:

Semester Hours

Design	24
History and Theory	12-15
Media	3-6
Electives	9-18

Total courses 60

The department chair or associate 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 and Certificate Options

Students may enroll in a dual degree program with architecture (MArch) or urban and regional planning (MURP).

Students also may be selected through an application process to participate in a dual degree MLA with Tongji University in Shanghai, China. A thesis is required for students participating in this program. Read more about this program on the department website.

A certificate in Geospatial Information Science (GIS) is also available to students interested in pursuing geospatial design.

Management and Organization MS

Program Director: Kenneth L. Bettenhausen

Telephone: 303-315-8425

E-mail: Kenneth.Bettenhausen@ucdenver.edu

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 the career-focused specializations.

The specializations include: business strategy, change and innovation, enterprise technology management, entrepreneurship and innovation, global management, leadership, managing human resources, managing for sustainability, sports and entertainment management and strategic 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

Management and Organization Core: (12 hours)

- BUSN 6520 - Leading Individuals and Teams
- MGMT 6320 - Leading Organizational Change
- MGMT 6360 - Designing Effective Organizations
- MGMT 6380 - Managing People for Competitive Advantage

Management and Organization Electives or Specialization: (12 hours)

A student may select any four MGMT, INTB or ENTP elective courses or complete one of the Management specializations, all of which include four courses.

Specialization Options:

- Business Strategy
- Change and Innovation
- Enterprise Technology Management
- Entrepreneurship and Innovation
- Global Management
- Leadership
- Managing Human Resources

- Managing for Sustainability
- Sports and Entertainment Management
- Strategic Management

Business Strategy

Complete four 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 6500 - International Business Consulting
- MKTG 6010 - Marketing Strategy, Evaluation and Development
- MGMT 6610 - Business Strategy Lab
- MGMT 6730 - Human Resources Management: Performance Management
- MGMT 6803 - Visionary Leadership
- Your selection may include up to 2 of the following FNCE/RISK 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
- RISK 6909 - Corporate Risk Management

Change and Innovation

Select four of the following:

- MGMT 6730 - Human Resources Management: Performance Management
- MGMT 6803 - Visionary Leadership
- MGMT 6804 - Bargaining and Negotiation
- MGMT 6808 - Leadership Development
- 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 (may be completed as a Free Elective):

- ISMG 6180 - Information Systems Management and Strategy
- Select 3 of the following:

- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6450 - IT Project Management
- ISMG 6460 - Emerging Technologies
- ISMG 6830 - IT Governance and Service Management

Entrepreneurship and Innovation

Select 2 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
- ENTP 6834 - Entrepreneurial Marketing
- ENTP 6842 - New Concept Development
- ENTP 6620 - New Venture Operations and Project Management
- ENTP 6644 - Social Entrepreneurship in the Developing World
- ENTP 6800 - Special Topics in Entrepreneurship
- ENTP 6822 - Legal and Ethical Issues of Entrepreneurship
- ENTP 6838 - Real Estate for the Entrepreneur
- ENTP 6848 - Leadership in New Ventures

Select 1 of the following courses:

- ENTP 6020 - Business Model Development & Planning
- ENTP 6021 - Corporate Entrepreneurship

Select 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
- INTB 6040 - Managing Global Talent

OR

- MGMT 6040 - Managing Global Talent

Select 1 of the following:

Any INTB 6*** course or Travel Study Program (see advisor for details)

Leadership

Select 4 of the following:

- MGMT 6803 - Visionary Leadership
- MGMT 6804 - Bargaining and Negotiation
- MGMT 6808 - Leadership Development

May include up to 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
- BANA 6650 - Project Management
- ENTP 6848 - Leadership in New Ventures
- INTB 6000 - Introduction to International Business

Managing Human Resources

Prerequisites (completion of BUSN 6530 is in addition to the 30 hour MS MGMT)

- BUSN 6530 - Data Analysis for Managers
- MGMT 6380 - Managing People for Competitive Advantage **Complete in core**
Select 4 of the following:
- 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

- ACCT 6285 - Accounting and Finance for Sustainability
- BUSN 6870 - Global Climate Change
OR
- INTB 6870 - Global Climate Change
- ENTP 6642 - Exploring Social Entrepreneurship
- ENTP 6644 - Social Entrepreneurship in the Developing World
- ENTP 6808 - Practicum in Sustainable Business Research
- 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
- BUSN 6830 - Business and the Natural Environment
*Independent Study/Internships by petition only
- MGMT 6840 - Independent Study
- MGMT 5939 - Internship
OR
- MKTG 5939 - Internship
- MKTG 6830 - Marketing & Global Sustainability
- BANA 6730 - Supply Chain Management

Sports and Entertainment Management

Select 4 of the following:

- MGMT 6830 - Sports and Entertainment Management
- MGMT 6832 - Law and Negotiation in the Sports/ Entertainment Industries
- BUSN 6860 - Finance in the Sports Entertainment Industries
- MKTG 6820 - Sports & Entertainment Marketing
- MGMT 6834 - London Calling: Global Sports and Entertainment Management
- MGMT 5939 - Internship (by petition only)

Strategic Management

Prerequisites (completion of prerequisites is in addition to the 30 hour MS MGMT):

- BUSN 6530 - Data Analysis for Managers
- BUSN 6550 - Analyzing and Interpreting Accounting Information
- BUSN 6620 - Applied Economics for Managers
- BUSN 6630 - Management of Operations

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)

Any course numbered 6800 or higher with prefix of ACCT, BANA, BUSN, CMDT, ENTP, FNCE, INTB, ISMG, MGMT, MKTG, MTAX, or RISK. Enterprise Technology Management (ETM) specialization students must take at least one MGMT, ENTP or INTB course as a free elective. ETM specialization students must also complete the required course of ISMG 6180 as a free elective.

Marketing MS

Program Director: Vicki Lane

Telephone: 303-315-8468

E-mail: Vicki.Lane@ucdenver.edu

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. 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 specializations.

Required Courses: (21 hours)

- 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 Metrics and Dashboards

Marketing Electives or Specialization: (9 hours)

Students may select any course numbered 6000 or higher with a **MKTG** prefix **OR** students may choose from the 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
Select 2 of the following courses:
- MKTG 6030 - Sales and Sales Force Management
- MKTG 6090 - Customer Relationship Management
- MKTG 6092 - Social Media Marketing
- MKTG 6820 - Sports & Entertainment Marketing
- MKTG 6830 - Marketing & Global Sustainability

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
Select 1 of the following courses:
- ENTP 6826 - International Entrepreneurship
- INTB 6020 - Cross-Cultural Management
- INTB 6022 - International Business Negotiations
- INTB 6200 - International Business Policy
- 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 endeavors probability of success. If you aspire to be the next Bill Gates, this is a "must take" degree path for you.

Required:

- ENTP 6842 - New Concept Development
Select 2 of the following courses:
- MKTG 6030 - Sales and Sales Force Management
- MKTG 6070 - Integrated Marketing Communications and Brand Identity
- MKTG 6092 - Social Media Marketing

- ENTP 6020 - Business Model Development & Planning
- ENTP 6021 - Corporate Entrepreneurship
- ENTP 6824 - Entrepreneurial Financial Management
- ENTP 6826 - International Entrepreneurship
- ENTP 6838 - Real Estate for the Entrepreneur

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
Select 2 of the following courses:
- ACCT 6285 - Accounting and Finance for Sustainability
- BANA 6730 - Supply Chain Management
- BUSN 6830 - Business and the Natural Environment
- INTB 6870 - Global Climate Change
- 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:

- BANA 6610 - Statistics for Business Analytics
Select 2 of the following:
- BANA 6660 - Predictive Modeling with Big Data
- BANA 6720 - Simulation Modeling
- ISMG 6080 - Database Management Systems
- ISMG 6220 - Business Intelligence Systems and Analytics
- ISMG 6480 - Data Warehouse and Administration
- MKTG 6070 - Integrated Marketing Communications and Brand Identity
- MKTG 6090 - Customer Relationship Management

Social Media 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 - Social Media Marketing
Select 2 of the following courses:
- BANA 6610 - Statistics for Business Analytics
- BANA 6660 - Predictive Modeling with Big Data
- MKTG 6070 - Integrated Marketing Communications and Brand Identity
- MKTG 6090 - Customer Relationship Management
- ISMG 6080 - Database Management Systems
- ISMG 6240 - Website Development Practice and Technologies
- ISMG 6430 - Information Systems Security and Privacy

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
Select 2 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

Return to: School of Education & Human Development

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

Information about faculty is available online at www.ucdenver.edu/education

The MEd in mathematics education program incorporates courses in mathematical content, pedagogy and research. This approach 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 core courses provide a sound basis in mathematics education, curriculum theory, teacher inquiry, appreciation of diversity and philosophical foundations.

MEd Core - 15 credits

- MTED 5030 - Theories Of Mathematics Learning
- MTED 5040 - Mathematics Teaching - Theory and Practice
- MTED 5050 - Critique Of Mathematics Education Research
- MTED 5060 - Developmental Pathways In Students' Mathematical Thinking

12 credits

Plus

- RSEM 5080 - Research In Schools
- Or
- RSEM 5120 - Introduction to Research Methods
- 3 credits**

Mathematics Core - 15 Credits

Required Mathematics Core - Choose three courses in consultation with faculty advisor. Students may select 5000-level MATH, MCKE, MTED, or RSEM courses relevant to the grade-level with which the teacher works with approval from faculty advisor.

9 credits

Plus

Thesis Option: Required Course - SECE 5950 - Master's Thesis. 6 credits

Or

Non-Thesis Option: Elective Courses - Choose two courses relevant to the grade-level with which the teacher works in consultation with faculty advisor. **6 credits**

MSEd Total: 30 Hours

MBA/MS in Bioengineering

The Business School and the Department of Bioengineering offer this degree option for students admitted into the Bioengineering MS program and the MBA program. This dual degree is an excellent opportunity for students who are planning a career in industry or as an entrepreneur. Bioengineering students including those who create medical devices, often launch their own venture upon graduation or thereafter. Business skills, especially in the area of marketing, legal environments, finance and operations are critical to enhance the probability of venture success. A dual degree also opens up new doors with regard to career choice, either in business or in one's core field.

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. There are also tracks in sports engineering and motorsports engineering.

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 four options. In the first three options, the student may choose to specialize in thermal science, mechanics or biomechanics. The fourth 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 **biomechanics option** requires 31 credit hours to graduate. Please contact the mechanical engineering department or visit the biomechanics website for more information.
- 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 four options the student may select any mechanical engineering graduate course to complete the credit-hour requirements. 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 emphasis is media forensics 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 related disciplines (media production, electrical engineering, forensics, computer science, 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 ability to work full-time while completing most of the program online with additional onsite study at the NCMF and its partner institutions. Classes are comprised of online self-guided lectures, interactive learning, discussion boards, reading responses and scheduled video conferencing. Onsite course work provides students with hands-on and practical experiences which augment and enrich the curriculum. Additionally, experiential learning activities include visits to regional crime labs and scientific conferences to understand the application of forensic media technology and laboratory procedures.

Courses 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 with input from 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 and federal levels.

Note: The application process and requirements for the Master of Science in Recording Arts emphasis in media forensics (MSRA-MF) differ from those listed for the recording arts (MSRA) program.

MSRA Media Forensics Application

Admission to the MSRA-MF program is competitive. Admission decisions are made by committee and are based on the entirety of the applicant's submitted materials. Admission to the program is contingent upon:

- Formal documentation of an earned bachelor's degree in a related field. (International students must document an equivalent.) Undergraduate degrees from other disciplines will be considered with proper support from application components.
- Successful completion of the Graduate Record Exam (GRE) Revised General Test.
- For international students, submission of proof of English Language Proficiency. Please contact the Office of International Admissions website for more information.
- Strength of application components as they relate to:
 - Scientific competency
 - Writing skills
 - Desire to work in the field of forensic media analysis
 - Strength of academic/professional background
 - Strength of references through letters of recommendation

Application Components

The application deadline is **April 1**. The program accepts students in the **fall** only. Required application components include:

- Graduate Application for Admission
- Application Fee
- Entrance Examinations: GRE (and TOEFL/IELTS or other evidence of English proficiency, if applicable)
- Official Transcripts
- Cover Letter
- Resume
- Three (3) Letters of Recommendation
- Two (2) Technical Writing Samples

Applications that do not include all of the requirements or that include partial components are considered incomplete and will not be reviewed.

International applicants are encouraged to visit the Office of International Admissions website for detailed information.

Refer to the National Center for Media Forensics MSRA-MF program website for detailed information and updates regarding the application process and requirements.

Curriculum

The MSRA-MF program 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.

Curriculum and application requirements are subject to change. Refer to the National Center for Media Forensics MSRA-MF program 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 30 graduate credit hours to complete the MA degree.

Core Courses

- PSCI 5014 - Seminar: American Politics
- PSCI 5085 - Comparative Governance: Environment and Society
- 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

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

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.

Certificate Program

The Center for New Directions MA program offers a certificate program as well, allowing students to focus their studies in a particular direction and to note that particular focus on their transcript. Students do not have to be seeking a full Master's degree to earn a certificate of completion through the certificate program.

For more information on the graduate certificate in Public Non-Profit and Community Leadership, click [here](#).

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 alternative "politics and public policy" track take most courses in weekend, off-campus locations. Students completing either track 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. 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 non-degree student. Non-degree 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 School Rules. 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:

PSCI 5000 - 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. Any course in which a student receives a final grade lower than B- cannot be counted toward the total credits for the Master's degree. 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.

The Political Science graduate program offers two transcribed certificates, allowing students to focus their studies in a particular direction and to note that particular focus on their transcript.

For more information on the graduate certificate in Democracy and Social Movements, [click here](#).

For more information on the graduate certificate in Public, Non-Profit and Community Leadership, [click here](#).

Public Administration MPA

[Introduction](#)

The Master of Public Administration degree (MPA) provides graduate professional education for students interested in public service leadership positions and careers with public and nonprofit agencies and organizations. The program serves students new to public service as well as those already in the field who are interested in furthering their careers.

Program Director: Christine Martell, PhD

[Faculty](#)

Professors:

Lloyd Burton, PhD, University of California, Berkeley
Angela Gover, PhD, University of Maryland
Mary Guy, PhD, University of South Carolina
Callie Rennison, PhD, University of Houston
Richard Stillman, PhD, Syracuse University
Paul Teske, PhD, Princeton University

Associate Professors:

Tanya Heikkila, PhD University of Arizona
Christine Martell, PhD, Indiana University
Danielle Varda, PhD, University of Colorado Denver
Allan Wallis, PhD, City University Graduate Center
Chris Weible, PhD, University of California, Davis

Assistant Professors:

Todd Ely, PhD, New York University
Benoy Jacob, PhD, University of Illinois at Chicago
John Ronquillo, PhD, University of Georgia

Wirth Chair in Sustainable Development:

Mark Safty, JD, University of Montana

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

Dean Emerita:

Kathleen Beatty, PhD, Washington State University

Senior Instructor:

Wendy Bolyard, PhD, University of Central Florida
Pamela Medina, PhD, University of Central Florida
Robyn Mobbs, PhD, University of Colorado Denver

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 subscores of 20 or greater, 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.*

Preferred Application Deadline

Fall - March 1
Spring - October 15
Summer - March 1

*Final Deadline**

Fall - August 1
Spring - December 1
Summer - 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.

MCJ students may select two of the following for their first semester:

- CRJU 5001
- CRJU 5003
- 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. Taking courses as a nondegree student does not guarantee later admittance into the MCJ program. 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 MCJ student is 6 to 9 graduate credit hours per semester; full-time status for MCJ graduate students is 5 graduate credit hours per semester for financial aid determination. A student who is employed full-time is strongly advised not to carry more than 6 graduate semester hours in the MCJ program. Students who wish to carry a graduate course load above 9 hours per semester must consult their advisor and/or student service coordinator first.

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 1 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 the equivalent of at least one year of professional full-time experience in the field, following the awarding of their Bachelor degree. The purpose of the internship is to continue the linkage between theory and practice that is the philosophical basis of SPA. Internships generally involve substantive part-time work undertaken during the course of one semester. A maximum of three semester hours will be awarded for internship service. 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 seven 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
- Or
- PUAD 5503 - Public Budgeting and Finance *Students in the Local Government Concentration must take PUAD 5503

- PUAD 5005 - The Policy Process and Democracy
- PUAD 5006 - Public Service Leadership
- PUAD 5008 - Evidence-Based Decision-Making

3. Electives

All MPA students must complete 12 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 12 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 5633 - Seminar in Natural Resource and Environmental Health Law
- Electives approved by advisor (2) (6 semester hours)

Total: 12 Hours

Local Government Concentration

Students take

- PUAD 5503 - Public Budgeting and Finance
and at least two of the three 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 (1-2) (3-6 semester hours)

Total: 12 Hours

Gender-Based Violence Concentration

Students take four specified courses.

- PUAD 5910 - Nature and Scope of Interpersonal Violence
- PUAD 5920 - The Psychology of Interpersonal Violence
- PUAD 5930 - Interpersonal Violence Law and Policy
- PUAD 5940 - Interpersonal Violence Leadership, Advocacy, and Social Change

Total: 12 Hours

Emergency Management and Homeland Security Concentration

Students must take two out of the three courses listed below as well as electives approved by the advisor. We recommend that students take all three courses if possible.

- GEOG 5230 - Hazard Mitigation and Vulnerability Assessment
- PUAD 5650 - Public Policies for Homeland Security and Disasters
- PUAD 5450 - Law of All-Hazards Management
Electives approved by advisor (1 or 2) (3-6 semester hours)

Total: 12 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 (6 semester hours)

Total: 12 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 accelerated option is priced at a flat fee, regardless of in-state or out-of-state student status, 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 August. 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.

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, and other concentrations are being added annually. As well, a variety of other electives leading to a general MPA degree are available online. Students in the executive option may also choose to do all SPA course work online.

Gender-Based Violence Cohort

The first graduate program of its kind in the nation, the University of Colorado Denver's MPA concentration in gender-based violence focuses on the management and policies surrounding gender-based 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 gender-based violence concentration courses is the same for in-state and out-of-state students. Nonresident students pursuing the MPA with a concentration in gender-based violence may also qualify for reduced tuition through the Western Regional Graduate Program which covers 14 western states.

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 requires a concentration, in either 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

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 this 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 semester hours in their major field or minor field)

Secondary Teacher Licensure

Students interested in secondary teacher licensure should consult with the School of Education and Human Development. See the Urban Teacher Education Program for information.

History MA

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, MIDI sequencing, live sound reinforcement, and post-production for film and video. The program refines students' skills in sound recording, aesthetics, multi-track recording, analog and digital signal processing, automated mixing, synchronization, stereo and surround imaging, mastering and post-production.

The Master of Science in Recording Arts (MSRA) has the only pedagogy track in the nation. Pedagogy is synonymous with teaching, and the MSRA includes a survey of available resources for audio education. The curriculum offers an interdisciplinary approach, which can include physics, acoustics, engineering, music recording, psychoacoustics, multimedia, theatre and film/video. The program emphasizes design and development of new methods and materials.

This graduate degree is designed to:

- prepare students for audio careers in mass communications, education, music, multimedia and the entertainment industries.
- enhance advancement of professionals in their careers.
- prepare the music educators of the future.

In their final semester, students will create and defend a thesis or a portfolio.

- *Thesis* -- Written research
- *Portfolio* -- Research in conjunction with a recorded work. This could be a music recording, audio for video, or other media.

Graduate courses comprising the core of the program advance students' artistic, pedagogical, technical and problem-solving abilities. Elective courses allow each student to develop additional skills and knowledge in related areas, including surround sound, acoustics, studio design, digital signal processing and others.

The Department of Music & Entertainment Industry Studies encourages students from allied disciplines (music, physics, engineering, etc.) to apply. Students are not required to have their bachelor's in recording arts; the bachelor's degree can be from any discipline. Applicants can qualify for the MSRA program 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 MSRA program differ from those listed for the media forensics emphasis.

MSRA Application Components

Admission to the MSRA program is competitive. Applications are accepted for fall-only admission to the cohort. Admission decisions are made by committee and are based on the entirety of the applicant's submitted materials. Incomplete applications are not considered, and application requirements may vary between domestic and international students.

- Graduate Application for Admission
- In-State Tuition Classification Application (if applicable)
- Application Fee
- Entrance Examinations: GRE (and TOEFL/IELTS or other evidence of English proficiency, if applicable)
- Official Transcripts
- Three (3) Letters of Recommendation
- Application Essay
- Resume
- Portfolio

Applications that do not include all of the requirements or that include partial components are considered incomplete and will not be reviewed.

International applicants are encouraged to visit the Office of International Admissions website for detailed information.

Refer to the MSRA website for deadlines, detailed information and updates regarding the application process and requirements.

Required Courses

- MSRA 5000 - Introduction to Graduate Studies
- MSRA 5001 - MSRA Research Seminar
- 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: 19 Hours

Electives

Choose **15 semester hours** from the list below. Students may take courses not listed here upon approval of the faculty or academic advisor.

- 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)

Program Total: 34 Hours

Students should plan to graduate in a minimum of four 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 MSRA website for additional information.

School Library and Instructional Leadership MA

Office: 999 18th St. Suite 144

Telephone: 720-639-9228

Fax: 303-315-6311

E-mail: cpe@ucdenver.edu

Website: <http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/MASTERS/SchoolLibrary/Pages/SchoolLibrary.aspx>

[Faculty](#)

Information about SLIL faculty is available online at

<http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/MASTERS/SchoolLibrary/Pages/SchoolLibrary.aspx> .

[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 21st Century Learning standards with the content standards of the classroom teacher. The program adheres to the constructivist theory of resource-based learning, teacher leadership, instructional coaching, and media literacy. 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.

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 a school librarian endorsement-only for 24 graduate semester hours and a full master's program with a teacher-librarian endorsement. The master's program requires a minimum of 30 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

Consult with your program and faculty advisor for a current example of a program plan of study.

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.

30 Credit MA Degree Plan of Study

Prefix: Course Title	Term offered:	Credits
SCHL 5100: School Libraries in the Digital Age	Fall	4
SCHL 5030: Information Literacy & Reference	Fall	3
SCHL 5160: Managing School Library Programs	Spring	3
RSEM 5080: Research for Teachers or INTE 6720: Research in Information and Learning Technologies	Spring	3
SCHL 5040: Information Storage & Utilization	Summer	2
SCHL 5200: Promoting Literacy through SL	Summer	3
SCHL 5913: School Library Field Experience	Fall	3
INTE 5300: Media Literacy and Maker Culture	Summer	3
INTE 6999: Leadership & Practice	Fall	3

ELECTIVE - CHOOSE ONE COURSE

One of our courses from our Online Learning Certificate program or our Teacher Leadership Certificate program	3
XXXX: Other Advisor-Approved Course from one of our certificate programs.	
ePortfolio completed for graduation	0
PLACE Test Passed (if seeking an endorsement in CO post-graduation)	0

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 SCHL website.

School Psychology PsyD

Return to: School of Education & Human Development

- Degree
- Admission Requirements

Program Leader: Franci Crepeau-Hobson

Office: Lawrence Street Center, 1113

Phone: 303-315-6315

Fax: 303-315-6349

E-mail: franci.crepeau-hobson@ucdenver.edu

Website: www.ucdenver.edu/education/spsy

Faculty

Information about faculty in the school psychology program is available online at www.ucdenver.edu/education.

Degree

The doctor of psychology (PsyD) degree in school psychology is a 96 graduate semester-hour program that leads to licensure as a school psychologist by the Colorado Department of Education and prepares graduates to apply for licensure by the Colorado State Board of Psychologist Examiners.

The program is based on the *Accreditation Domains and Standards* of the American Psychological Association (APA) and the *Model for Comprehensive and Integrated School Psychological Services* endorsed by the National Association of School Psychologists (NASP). This model and these standards promote the following domains of psychology: data-based decision-making and accountability; consultation and collaboration; interventions and mental health services to develop social and life skills; school-wide practices to promote learning; preventative and responses services; family-school collaboration services; diversity in development and learning; biological bases of behavior; research and program evaluation; and legal, ethical and professional practice.

Consistent with a practitioner-scholar model, the PsyD Program in School Psychology prepares professional school psychologists through rigorous academic study integrated with intensive supervised clinical practice. The Program includes an emphasis on the delivery of mental health services in schools, as well as the development of advanced level practice skills. The Program stresses the application of scholarly findings to practice, as well as a respect for all aspects of diversity.

Bilingual School Psychologist Concentration Option

This optional specialization provides School Psychology students with the knowledge and skills to effectively serve English language learners in the school setting. In addition to the three 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 a combined score of at least 300 on the verbal and quantitative sections 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 or vita, a personal statement that outlines their reasons for pursuing a degree in school psychology at CU Denver, and three letters of recommendation. The highest ranked applicants will be invited to a full-day group interview that includes a program orientation, a writing assignment, and a campus tour.

Application materials are available at

https://soa.prod.cu.edu/degreeprog/applyDEGREEPROG_CUDEN/login.action. All materials must be submitted online by December 1 for fall semester admissions. 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/personal statement
- resume or vita
- three letters of recommendation
- 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 Doctor of Psychology Degree in School Psychology and Licensure

Students will complete course work in learning and cognition, academic interventions, legal and professional issues, psychological assessment, crisis intervention, counseling and other direct interventions, and consultation. Specific course requirements include three prerequisite courses, 71 credit hours of coursework, 7 credit hours of practica (minimum of 500 hours in the field), 6 credit hours of clinical externship (minimum of 500 clock hours in the field), 8 credit hours of internship (minimum of 1500 clock hours in the field), and 4 capstone project credit hours. Successful completion of the School Psychology Praxis exam during the course of study and passing of comprehensive examinations are also required. Prerequisites include an undergraduate or graduate course in each of the following: measurement concepts, basic statistics, and child development. Students may be admitted to the program without first completing these prerequisites; however, these courses must be completed during the first year of study.

Program Requirements

Students will complete the following core course work:

- COUN 5010 - Counseling Theories
- EDHD 5240 - Cognition and Instruction
- PSYC 7220 - Advanced Biological Bases of Behavior

- PSYC 7511 - Historical and Philosophical Foundations of Psychology
- PSYC 8550 - Advanced Social Psychology
- RSEM 6100 - Methods of Qualitative Inquiry
- RSEM 7050 - Methods of Survey Research
- RSEM 7110 - Intermediate Statistics
- RSEM 7210 - Program Evaluation
- 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 6350 - School-Based Interventions: Children, Youth and Families
- SPSY 6400 - School-Based Interventions: Groups, Classrooms and Systems
- SPSY 6410 - Psychoeducational Assessment of Culturally and Linguistically Diverse Students
- 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 6700 - Advanced Seminar in School Psychology
- SPSY 7980 - Clinical Supervision and Administration of Psychological Services

Supervised Experiences

- SPSY 6911 - School Psychology Practicum
- SPSY 6917 - Advanced Practicum in Psychological Assessment
- SPSY 6918 - Clinical Externship
- SPSY 6930 - School Psychology Internship

Total: 96 Hours

The doctor of psychology in school psychology degree also requires satisfactory completion of a professional portfolio, demonstrating mastery of the program objectives, a passing score (≥ 147) on the ETS PRAXIS specialty exam in school psychology, a passing score on a written comprehensive examination, and enrollment in 4 credit hours of SPSY 8980 and completion of a capstone/applied research project .

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.

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 in addition to the following:

- evidence of a bachelor's degree
- two official copies of transcripts from all community colleges, colleges, and universities attended
- 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 MSS degree
- a typed 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).

For further information on non-degree graduate student status, see the Information for Graduate Students section of this catalog. In the case of CU Denver graduate students transferring to the MSS program, previous course work may be accepted as appropriate to the MSS plan of study.

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 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 focus areas 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)
- SSCI 5023 - Research Perspectives in Social Science
(Offered spring only)

Students should take this course only after they have completed 21-24 credit hours, which will be toward the end of the program, when students are ready to write a proposal for their thesis or project.

Total: 9 Hours

Electives

In addition to the 9 credits of required coursework, 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 coursework 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

Oral Exam

An oral exam defending the project or thesis before a committee of three faculty members must be passed in order to graduate.

Degree Total: 36 Hours

Sociology MA

► Graduate School Rules apply to this program

Program Requirements

The MA program in Sociology provides a coherent, progressive educational experience that prepares students for either immediate entry to a master's-level career or continued study in a PhD program. Students choose from two options for their Comprehensive Paper that completes the master's degree: either a 3-credit project report that accompanies a 3-credit internship, or a 6-credit thesis. The program also offers 3 concentration areas (Crime, Law & Deviance; Health & Society; Family, Social Services & Community) for students seeking specialization in high-demand career areas.

Required Courses

Tier 1 Knowledge

This includes 5 courses required for all graduate students. SOCY 5000 must be taken in the first fall semester. SOCY 5024 must be taken before SOCY 5183 and SOCY 5193. Students must earn a *B* or better in all core courses.

- SOCY 5000 - Professional Seminar: Sociological Inquiry (3 credits)
- SOCY 5016 - Social Theory (3 credits)
- SOCY 5024 - Seminar: Research Methods I (3 credits)
- SOCY 5183 - Seminar: Quantitative Data Analysis (3 credits)

- SOCY 5193 - Seminar: Qualitative Data Analysis (3 credits)

Tier 1 total: 15 Credits

Tier 2 Knowledge Applied to Substantive Areas

- 12 elective credits (students choosing a concentration must apply 9 of these credits to that area)

Tier 2 total: 12 Credits

Tier 3 Comprehensive Paper

- SOCY 5955 - Master's Thesis (6 credits)
OR
- SOCY 5939 - Internship (3 credits)
AND
- SOCY 5964 - Master's Report (3 credits)

Tier 3 total: 6 Credits

Plans of Study

Students must choose **one** of the following Comprehensive Paper options:

Thesis Option Requirements

Core course requirements 15 Credits

Four substantive area courses 12 Credits

Master's Thesis 6 Credits

- SOCY 5955 - Master's Thesis

Thesis Option Total: 33 Credits

Project Report Option Requirements

Core course requirements 15 Credits

Four substantive area courses 15 Credits

Internship 3 Credits

Master's Report 3 Credits

- SOCY 5939 - Internship
- SOCY 5964 - Master's Report

Project Report Option Total: 33 Credits

Substantive Area Requirements (12 credits for both options)

Students can take an unlimited number of sociology graduate (5000-level) seminars to fulfill their 12 elective credits requirement, or a combination of the following:

- Independent study: maximum 6 semester hours
- Graduate level courses in other departments: maximum 6 semester hours
- Internship: maximum 3 semester hours

Students pursuing one of the concentration areas should work closely with the Graduate Program Director or their Academic Advisor to verify that 9 credits of selected courses qualify for the chosen concentration area.

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 faculty of the CU Denver Modern Languages Department offer 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 3.0, 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):

- **3 hours** SPAN 5000 - Introduction to Graduate Studies in Spanish
- **24 hours** Literature/Culture and Linguistics coursework, including at least 6 semester hours in Literature/Culture and 6 in Linguistics. Students may include up to two courses (3-6 credits) from outside the Modern Languages Department, as approved by their advisor.
- **6 hours** SPAN 5950 - Master's Thesis preparation and writing

Thesis Option Total: 33 Hours

Nonthesis option (course work):

- **3 hours** SPAN 5000 - Introduction to Graduate Studies in Spanish
- **30 hours** Literature/Culture and Linguistics coursework, including at least 6 hours in Literature/Culture and 6 in Linguistics. Students may include up to two courses (3-6 credits) from outside the Modern Languages Department, as approved by their advisor.

Nonthesis Option Total: 33 Hours

Notes:

1. No more than one undergraduate course (3 semester hours) may be applied toward the MA degree, and that course must have been taken at the 4000 level or above and 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.

Taxation MS

Program Director: Eric Zinn

Telephone: 303-315-8482

E-mail: Eric.Zinn@ucdenver.edu

The MS in Taxation degree from CU Denver gives you the skills and knowledge you need to be successful in a career in this dynamic and changing industry. Tax professionals are constantly in demand, and the long-term prospects make this a particularly intriguing field.

There is an increasing demand for tax professionals-over 20% job growth in the next decade. The average starting salary in this field is \$60,000. To meet this industry demand the CU Denver Business School has created an MS in Taxation degree to give students the skills and knowledge needed to succeed in this dynamic career field.

The world of tax is constantly changing. Globalization and increased competition, both domestically and internationally, has created a situation where tax law is helping to shape social, political, economic, and business policies and agendas. CU Denver is the only public university in Colorado to offer this specialized degree, and one of only 15 schools nationwide.

Prerequisite (3 semester hours or waiver with advisor approval)

- ACCT 6140 - Tax Planning for Managers
OR
- ACCT 4410 - Income Tax Accounting
ACCT 4410 or ACCT 6140 or an equivalent course taken at another accredited domestic institution is a prerequisite for all MS in Taxation courses.

Core Requirements (12 semester hours)

- MTAX 6400 - Taxation of Corporations and Shareholders
- MTAX 6440 - Tax Practice and Procedures
- MTAX 6450 - Research Problems In Taxation
- MTAX 6480 - Partnership Taxation

Electives (18 semester hours)

Choose six of the following courses:

- MTAX 6410 - Advanced Tax For Individuals
- MTAX 6420 - Estate and Gift Taxes
- MTAX 6430 - International Taxation
- MTAX 6455 - Tax Aspects Relating to Exempt Organizations
- MTAX 6460 - Advance Topics in Taxation
- MTAX 6475 - Accounting for Income Taxes
- MTAX 6482 - Advanced Partnership Taxation
- MTAX 6500 - Advanced Corporate Taxation

Potential future course offerings:

- State and Local Taxation
- Taxation of Oil, Gas, and other Mineral Rights
- Taxation of S Corporations
- Taxation of Property Transactions
- Taxation of Consolidated Groups
- Methods of Tax Accounting

Urban and Regional Planning MURP

The Master of Urban and Regional Planning Program at the University of Colorado Denver has evolved to become one of the strongest, most unique planning programs in the United States. We offer a very hands-on, real-world oriented program that uses Colorado as our classroom and engages students with top planning/design professionals and the community.

We believe that successful city building requires expertise, breadth, interdisciplinary understanding, and creativity. Our program looks beyond traditional professional silos and instead centers on issues at the forefront of planning practice. Our three Initiatives-Healthy Communities, Urban Revitalization, and Regional Sustainability-form the basis of our research, instruction, and community outreach.

We encourage all students to follow their passion and develop expertise in the areas that matter most to them. Thus, we offer a unique, self-directed curriculum that allows students to understand the breadth of the planning field while gaining the technical expertise demanded by the profession.

Our world-class faculty includes some of the most respected researchers in the planning field, and our award-winning planning practitioners bring a wealth of experience to the classroom. All of our faculty make teaching a top priority.

Our presence in a College of Architecture and Planning ensures that our approach to planning education has a strong connection to design, and our location in the heart of downtown Denver presents our students with endless opportunities to learn what it takes to create amazing cities.

[Curriculum](#)

Program Requirements

Completing the MURP degree requires 54 semester hours, comprised of 36 semester hours of required "core" courses and 18 semester hours of elective courses. (Six of the 36 required semester 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 semester 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.

Core Courses

The MURP Program curriculum includes 10 required "core" courses totaling 36 semester hours. These courses provide students with a comprehensive survey of the planning field and the foundational knowledge, skills, and values important to the profession. The core courses have been carefully designed to fully comply with the Planning Accreditation Board's required educational outcomes. The list below shows the core courses and the program year in which the course is intended to be taken.

Year 1 - Fall

- URPL 5000 - Planning History and Theory
 - URPL 5010 - Planning Methods
 - URPL 5020 - Planning Law and Institutions
 - URPL 5030 - The Planning Profession
- 12 semester hours**

Year 1-Spring

- URPL 5040 - Urban Sustainability
 - URPL 5050 - Urban Development
 - URPL 5060 - Planning Workshop
- 12 semester hours**

Year 2

- URPL 6000 - Planning Project Studio
Student's choice of ONE of the following 6-credit courses:
 - URPL 6900 - Planning Capstone
- OR -
 - URPL 6920 - Planning Thesis A
and
 - URPL 6925 - Planning Thesis B
- 12 semester hours**

Elective Courses

Beyond the core curriculum, MURP students follow a self-directed educational path. Students may choose any combination from our broad offering of elective courses, whether aligned with one of our three Initiatives, a traditional or unique specialization, or a generalist survey of the planning field. We offer MURP students a broad selection of elective courses within the program. In addition, 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.

Internships

Internships are an important way the MURP program helps students achieve hands-on, experiential learning. The difference between an internship and a part-time job is that an internship is specifically intended to be a learning experience. While getting academic credit for an internship is not required, it is highly recommended. Students earn three elective credits for enrolling in URPL 6805 but, more importantly, the coursework will enable students to maximize the personal and professional development their internship affords.

Planning Workshop/Project Studio

Planning Workshop (URPL 5060) and Planning Project Studio (URPL 6000) are the two studio core courses. These courses are a key part of the hands-on, real-world focus of the MURP program.

Planning Workshop is the introductory studio for MURP students. It provides students an opportunity to address actual planning problems, issues, and processes; apply previously acquired knowledge and skills; and develop new knowledge and practical skills in an applied context.

Students will develop basic competence in accessing existing information, generating new information, and performing planning analysis and synthesis. Students will also learn to enhance their graphic, written, and oral communication capabilities. Through the Planning Workshop experience, students will develop an understanding of the relationship between planning theory and practice, as well as gain the ability to formulate compelling planning arguments in applied settings.

Students will also receive introductory instruction in Trimble SketchUp, which complements the introductory instruction in Geographic Information Systems (ArcView GIS) and Adobe Creative Suite (Photoshop, Illustrator, InDesign) students receive in The Planning Profession course. The integration and use of all of these common planning technology applications is a critical component of the Planning Workshop experience.

Planning Project Studio is the MURP program's advanced studio course. This studio requires students to work together as a "planning consultant team" to complete a single planning project or study from beginning to end for a real-world client. It is expected that students enrolled in Planning Project Studio will have already gained the fundamental planning knowledge, skills, and values from their experience in Planning Workshop and other MURP courses. Consequently, the emphasis in Planning Project Studio is on putting everything together into a complete real-world planning project.

The studio will emulate the typical planning consultant/client experience, including: refining the project scope and schedule with the client; establishing guiding principles and expected outcomes; conducting case studies and existing plans background research; gathering and analyzing existing conditions data; formulating alternative plan concepts; assessing alternative concepts through specific criteria; identifying and refining the preferred alternative; and preparing and presenting the final plan deliverables to the client. Emphasis is also placed on professionalism, project management, team-building and collaboration, client management, public involvement, and other aspects of the real-world planning consultant realm.

Each Planning Project Studio course section will focus on a project generally associated with one of the MURP program's three initiatives (Healthy Communities, Urban Revitalization, and Regional Sustainability). Typically three to five sections of Planning Project Studio are offered each academic year, thereby ensuring that students will have a chance to enroll in a Planning Project Studio section that is aligned with an initiative of interest to them. However, as each studio section is limited in size, there is no guarantee students will be able to enroll in their preferred section. A balloting process will be used when necessary.

Planning Capstone/Planning Thesis

The culminating component of the MURP curriculum is the Planning Capstone/Planning Thesis requirement, which challenges students to utilize to the fullest extent the planning knowledge, skills, and values gained during their MURP program experience. Students must choose which option to select- Planning Capstone or Planning Thesis-based on their career goals, personal interests and aptitudes, and the advice of their faculty advisor.

Planning Capstone is a six-credit, project-oriented, one-semester course that results in a substantial deliverable upon completion. The Capstone option is best suited for students who wish to pursue a career as a professional planner after graduation. Within the Planning Capstone option are two alternatives: Independent Project and Small-Group Project.

If a student chooses the Planning Capstone > Independent Project path, he or she will work individually to complete a significant planning project or study for a real-world client. If a student chooses the Planning Capstone > Small-Group Project path, he or she must team up with one or two other students-forming a project team of no more than three people-to complete a significant planning project or study for a real-world client. However, each student must be individually responsible for a clearly defined component of the project as each student will be graded independently for his or her work.

During the semester before enrolling in Planning Capstone, students will be required to: (a.) determine if they will be working independently or as part of a small group, (b.) identify their Capstone client and project topic, and (c.) begin preparing a detailed project prospectus (work plan, schedule, methodology, and deliverables). Also during the semester before Capstone, students must attend a mandatory Capstone Orientation to receive instruction and guidance on project planning and management. Students must have a completed and approved project prospectus by the second week of their Capstone semester. Students may identify their own Planning Capstone client and project topic or they may select from a list of Capstone clients/projects that have been pre-arranged and approved by the MURP faculty.

During the Planning Capstone semester, students complete their project work while maintaining regular contact with their Capstone faculty advisor and client to ensure sufficient progress and work quality, as well as periodically meeting with other Capstone students to discuss common issues and challenges, share experiences, and receive continued instruction and guidance from the Capstone faculty on project management and methodologies. The Planning Capstone semester concludes with the submission of all deliverables and a formal presentation to the client and Capstone faculty.

For more information about the Planning Capstone option, please visit the Capstone webpage.

Planning Thesis comprises a pair of three-credit courses (A and B) taken over two semesters that together constitute a six-credit effort. The thesis option is most appropriate for outstanding MURP students who are considering pursuing a Ph.D. or a research-oriented career after graduation.

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.

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)

Urban Design MUD

► Graduate School Rules apply to this program

Program Information: Ann Komara

Telephone: 303-315-1000

Email: ann.komara@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, when students travel to study urban issues in dynamic, context-based locations.

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 in a joint studio set in either the Shanghai-Nanjing corridor with faculty and students from the nation's top schools of architecture and design at Tongji University and Southeast University or in the dense urban core of Copenhagen, Denmark with faculty and students at the Danish Institute for Study Abroad (DIS).

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. Each year, we bring in a renowned practitioner-in-residence to teach a core course, give lectures, and serve as a juror in all MUD studios. 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 have included: 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. The priority deadline is February 15; final deadline is March 15.

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
- Your statement of purpose (which should include your educational and professional goals)
- Résumé (which describes your educational and professional background)
- A portfolio that includes 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 statement indicating whether you would like to participate in the MUD Internship Program

- English language proficiency (TOEFL) scores are required for international applicants when English is not their first language. Please see International Admissions website for current minimum score requirements.

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 36-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 - Design Studio I
- URBN 6611 - Design Studio II
- URBN 6612 - International Design Studio
- URBN 6641 - Design Process
- URBN 6642 - Design Policy
- URBN 6651 - Design Practice
- URBN 6652 - Design Seminar

Total: 36 hours

Dual Degree Programs

Bioengineering Dual MS-MBA

- Graduate School Rules apply to this program.

Master of Science (MS) - Master of Business Administration (MBA) Dual Degree Program

We offer a dual MS-MBA in partnership with the CU Denver Business School. Please contact either program for more information and advising. Students registered in other MS programs in the University of Colorado system may be able to combine the two degrees; please contact us at bioengineering@ucdenver.edu for more information.

Bioengineering MD-MS

We offer an MD-MS in bioengineering in partnership with the University of Colorado School of Medicine. This dual degree option is available to current CU medical students only. Prospective students

should contact the department at bioengineering@ucdenver.edu as early in their medical school training program as possible for more information and advising.

Bioengineering MD-PhD

► Graduate School Rules apply to this 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 12 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.
- In addition, 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 (3.0)* 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 Criminal Justice: An Overview, 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 should apply after earning 75 credit hours of undergraduate coursework and before earning 90 credit hours. 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
 - Completed or scheduled 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. Completed or scheduled 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 15 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 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: Hani Mansour (Hani.Mansour@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.

A "dual" degree means that students who complete the program earn two master's degrees: MA in economics and MS in applied mathematics. Students interested in completing the dual degree in economics and applied mathematics 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. Students may apply to both programs at the same time or apply to the economics program first, and then to the applied math program after 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 Math Department.

[Click here for admissions requirements for the MA program in Economics](#)

[Click here for admissions requirements for the MS program in Applied Mathematics](#)

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 Applied Mathematics will make a student highly employable in the job market and provide them an edge in applying for elite PhD programs.

Degree Requirements

The requirements for the dual degree in economics and applied mathematics include completing 21 credit hours in ECON and 21 credit hours in MATH (42 total credit hours).

Students are expected to meet all course prerequisites. ECON 5803 – Mathematical Economics is a prerequisite for ECON 5073 - Microeconomic Theory and ECON 5813 - Econometrics I. This prerequisite requirement is waived for students who are currently admitted to the MS Applied Mathematics program.

A grade of B- or better is required in all courses, with a cumulative grade point average of B (3.0) or above. No course may be taken more than twice.

Core Courses

- 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

Total: 36 hours

Electives

One 5000 or higher course with a MATH prefix (**3 semester hours**), except MATH 5000-5010, MATH 5017, MATH 5198, and MATH 5250. Contact a graduate advisor in the Math Department for information about Math course requirements.

One 5000 or higher course with an ECON prefix (**3 semester hours**).

Contact a graduate advisor in the Economics Department for information about Econ course requirements.

Total: 6 Hours

Dual Degree Total: 42 Hours

Economics MA/Finance MS Dual Degree

► Graduate School Rules apply to this program

Admissions Advisor: Brian Duncan (brian.duncan@ucdenver.edu)

Schedule Advisor: Hani Mansour (hani.mansour@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.

A "dual" degree means that students who complete the program earn two master's degrees: MA in economics and MS in finance. 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. Students may apply to both programs at the same time or apply to the economics program first, and then to the finance program after 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 requirements for the MA program in Economics](#)

[Click here for admissions requirements for the MS program in Finance and Risk Management](#)

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.

Degree Requirements

The requirements for the dual degree in economics and finance include completing 21 credit hours in ECON and 21 credit hours in FNCE (42 total credit hours)

Students are expected to meet all course prerequisites. A grade of B- or better is required in all courses, with a cumulative grade point average of B (3.0) or above. No course may be taken more than twice.

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

- FNCE 6380 - Futures and Options
-OR-
- FNCE 6382 - Survey of Financial Derivatives
-OR-
- FNCE 6410 - Real Options and Decisions Under Uncertainty
Total: 30 Hours

Electives

Three 6000 or higher courses with a FNCE prefix (9 semester hours), except FNCE 6290 - Quantitative Methods. Contact a graduate advisor in the Business School for information about Finance course requirements.

One 5000 or higher course with an ECON prefix (3 semester hours). Students are strongly encouraged to take 3 elective hours of ECON 6053/6054 or to meet with an economics graduate advisor to discuss how to otherwise prepare for ECON 6073 - Research Seminar. Contact a graduate advisor in the Economics Department for information about ECON course requirements.

Total: 12 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: Hani Mansour (Hani.Mansour@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 dialog for either to be fully effective.

A "dual" degree means that students who complete the program earn two master's degrees: MA in economics and MPA in public administration. 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. Students may apply to both programs at the same time or apply to the economics program first, and then to the public administration program after 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 School of Public Affairs.

[Click here](#) or admissions requirements for the MA program in Economics

[Click here](#) for admissions requirements for the MPA program in Public Administration

Degree Requirements

The requirements for the dual degree in economics and public administration include completing 21 credit hours in ECON and 27 credit hours in PUAD (48 total credit hours).

Students are expected to meet all course prerequisites. A grade of B- or better is required in all courses, with a cumulative grade point average of B (3.0) or above. No course may be taken more than twice.

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 - Public Service Leadership
- ECON 6073 - Research Seminar
- -OR- PUAD 5361 - Capstone Seminar

Total: 33 hours

Electives

If the student elects to take the capstone course ECON 6073 - Research Seminar

One 5000 or higher course with an ECON prefix (3 semester hours).

Students are strongly encouraged to take 3 elective hours of ECON 6053/6054 or to meet with an economics graduate advisor to discuss how to otherwise prepare for ECON 6073 - Research Seminar.

Four 5000 or higher course with a PUAD prefix (12 semester hours).

If the student elects to take the capstone course PUAD 5361 - Capstone Seminar

Two 5000 or higher course with an ECON prefix (6 semester hours).

Three 5000 or higher course with a PUAD prefix (9 semester hours).

Contact a graduate advisor in the Economics Department for information about Econ course requirements.

Contact a graduate advisor in the School of Public Affairs for information about public administration course requirements.

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 CU Denver 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 CU Denver 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 - Leading 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 dialog 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 - Public Service Leadership
 - 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 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 - Public Service Leadership

Total: 15 Hours

Take one of two

- PUAD 5003 - Research and Analytic Methods
- URPL 5040 - Urban Sustainability

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 - Urban Sustainability
- 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 - Urban Sustainability

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 - Public Budgeting and Finance
- 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, 5010, 5012-5015, 5017, 5198, 5250 and 5830.]
- 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 by the start of their fourth semester.
- 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 non-thesis 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 www.math.ucdenver.edu/phd.

Bioengineering PhD

- Graduate School Rules apply to this program.

Doctor of Philosophy (PhD) Degree Program

The PhD is offered to students with an undergraduate or master's degree in engineering or the life sciences. Students complete the degree in three to five years with a highly individualized training pathway. All PhD students complete a dissertation, which may have an industry component.

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.

Visit our website (ucdenver.edu/bioengineering) or contact us at bioengineering@ucdenver.edu for more information.

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: engineering.ucdenver.edu/CSISPhD

The CSIS PhD degree is designed to provide an infrastructure for a wide spectrum of research possibilities in the computer science and information systems field. It is offered jointly through the Department of Computer Science and Engineering (housed in the College of Engineering and Applied Science) and the Information Systems program (housed in the Business School.)

The CS track emphasizes the scientific, algorithmic, system design and computing aspects of the field, while the IS track has a major emphasis on information management and the entrepreneurial side of the field. The two tracks intersect through some graduate-level course work, research, and committee memberships to provide a broad perspective of research and development in IT for students.

The PhD degree is granted by the College of Engineering and Applied Science for those focused on the CS track and by the Business School for those focused on the IS track. The program is multidisciplinary by nature, and while it supports basic research in computer science and in information systems in the traditional sense, the thrust of the program is collaborative research within the program and with other institutions. Our students work with research centers and researchers from variety of disciplines, including the CU School of Medicine, chemistry, mathematics, biology, all engineering disciplines, economics, health, and education, in addition to industry and businesses. This distinctive infrastructure supports basic research in both CS and IS as well as the demand of computing and IT integration with all other scientific and business fields.

Admission Requirements

For more information regarding the admission requirements for the CSIS PhD, visit engineering.ucdenver.edu/CSISPhD.

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. One committee member may be from outside 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 at engineering.ucdenver.edu/CSISPhD

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 (if determined by the comprehensive exam committee)

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

A list of course work and other requirements for the degree should be prepared with the advisor and submitted to the program 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 to 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 CSIS program 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

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

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 PhD 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. Including the advisor, the majority of the committee members must be full-time faculty members of CAP, and the majority of the committee members must have a PhD degree.

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.

Comprehensive Examination Committee

This committee consists of a minimum of three graduate faculty members, including the advisor. Although it is not a requirement, this committee should mainly consist of the Dissertation Advisory Committee. Including the advisor, the majority of the committee members must be full-time faculty members of CAP, and the majority of the committee members must have a PhD degree. For the comprehensive examination, at least one member must represent the student's major field of study, and at least one member must represent the minor field of study.

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.

Up to one member of a Dissertation Advisory Committee and up to one member of the Comprehensive Exam Committee without a PhD will be allowed upon a majority vote of the PhD Faculty.

Curriculum

The minimum requirement is 36 semester hours of coursework, all of which must be at the Graduate level (5000 and above) and 30 hours of dissertation semester hours. All PhD students are required to take 12 semester hours of core courses.

The curriculum is divided into three stages consisting of core courses, major and minor field courses, and the dissertation. The program requires a minimum of 66 semester hours of graduate work, 36 of which must be earned while in residence.

Each student's curriculum is tailored to his/her individual needs and is determined in close consultation with the dissertation advisor. Within their area of specialization, students will identify a major area of study and an outside field of study. All students are required to enroll in the PhD colloquium and Research Methods core courses during the first and second years of course work.

Core Courses (12 semester hours, minimum with B or better grade)

- PhD colloquium 1 (1 semester hour)
- PhD colloquium 2 (1 semester hour)
- PhD colloquium 3 (1 semester hour)
- PhD colloquium 4 (1 semester hour)
- Literature Review survey with the committee chair (2 semester hours total)
- Two Research Methods courses (3 semester hours each)

Major Field of Study (15 semester hours, minimum of B or better grade)

The Major Field encourages students to individualize their course of study by focusing on an area of scholarship within the specialized field. Major Advisors will work with the student to develop a course of study appropriate to the field.

Minor Area of Study (9 semester hours, minimum of B or better grade)

The Minor Area encourages students to individualize their course of study by focusing on an area of scholarship outside of the specialized field. The minor area may involve substantive research questions or it may focus on methodological approaches that can be related to the substantive concerns found in the major.

Additional Courses (variable): (30 semester hours, minimum of B or better grade)

During the course of doctoral study, students may enroll for credits related to their preparation for comprehensive exams, the dissertation proposal and preparation, or advisor approved independent study.

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.

Education and Human Development 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: <http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/Doctorate/Pages/PhD.aspx>

The PhD in education and human development links an intensive research-based course of study with a content area specialization in order to prepare candidates to assume faculty positions in institutions of higher education or research-based organizations. Successful applicants will be paired with a faculty mentor who will engage the students in research, development, service, and other forms of professional activity.

You will complete a plan of study that includes at least 45 semester credits of coursework (including all required core courses) and 30 semester credits of dissertation. The PhD program is designed to provide each student with an induction into the university research and teaching culture. PhD coursework is intensive and substantive, requiring significant writing, analysis, and critiquing of theory and professional literature.

Overview of Course Work:

The PhD program consists of a minimum of 75 semester credits. Total credits may vary in order to fully prepare for career opportunities. Students complete 45 credits in three core areas outlined below. The final 30 credits are completed through the dissertation.

12 credits - Foundation courses/experiences: Equity and Diversity; Learning; Epistemology; and Teaching in Higher Education

18 credits - Research Methods

15 credits - Concentration Area (see the list options below)

30 credits - Dissertation

Doctoral students complete a series of courses/experiences in a specified concentration area. Concentration areas focus on a defined discipline or content area in preparation for professional roles as researchers and faculty members.

The following concentration areas are available.

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 the 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.

Early Childhood Special Education/Early Childhood Education. The goal of this concentration area is to introduce students to issues and practices in early childhood special education/early childhood education and to prepare students to provide leadership to improve outcomes for all children including children with disabilities across early childhood settings. Students will obtain the skills and knowledge of evidence-based practices needed to meet state and national leadership needs within institutions of higher education to address issues in ECE/ECSE. Graduates will: conduct rigorous research related to culturally responsive, evidence-based practices; translate research into practice, thus expanding the use of evidence-based practice in the field; and, create, evaluate, and improve pre-service teacher education programs in ECE and ECSE.

Family Science and Human Development. The goal of this concentration is to prepare students to critically examine and understand family science within an ecological life span development lens. This program prepares students to work in academic careers as professors, researchers and scholars in Family Science and Human Development. Students are provided a rich curriculum that centers on theoretical and scholarly based knowledge in family science, human development and research inquiry. Another objective of this program is to integrate the importance of family diversity (which includes race, ethnicity, culture, class, gender, sexual orientation, age, religion, ability and language) into the curriculum as it relates to social justice in family science and child, adolescent and adult development. Central to the Family Science and Human Development concentration is the conceptual framework of family and human ecological systems and how that impacts research, practice and policy with diverse families in the United States and at the global level.

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.

Research, Assessment and Evaluation. The goal of this concentration area is to prepare students to design and carry out significant applied research on individual and organizational change in the field of education and human development. Through problem-based pedagogy and hands-on learning, students will be prepared to be collaborative applied researchers who work with community, university and

school partners. Students will learn advanced quantitative, advanced qualitative and mixed methods research techniques. Course content includes mixed methods, advanced statistics, advanced qualitative data analysis, systems analysis, collaborative team research and practicum experiences. Graduates of the program are prepared to work as faculty members, school district and organizational researchers, data analysts and assessment coordinators.

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.

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. Go to **engineering.ucdenver.edu** to learn more.

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 (engineering.ucdenver.edu/civil)
- Computer Science and Engineering (engineering.ucdenver.edu/cse)
- Electrical Engineering (engineering.ucdenver.edu/electrical)
- Mechanical Engineering (engineering.ucdenver.edu/mechanical)

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 (3 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.

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
- HBSC 7161 - Quantitative Methods in Health&Behavioral Sciences II

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 3 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: 3 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: Michael Wunder

Office: Science, 4124

Telephone: 303-556-8870

E-mail: michael.wunder@ucdenver.edu

Website: clas.ucdenver.edu/biology/grad.html

Requirements for Admission

- A BA/BS or MS from an accredited institution awarded within the last 10 years (validation of current content may be required). Minimum undergraduate GPA: 3.0
- General GRE test: minimum 50% performance in each section (quantitative, verbal, and analytical writing)

- TOEFL: required for international applicants from countries in which English is not the official language
- 3 letters of recommendation
- Official transcripts from all attended institutions
- Students are required to contact faculty in advance. Prior to application, applicants must have identified and contacted an available Faculty Advisor to ensure availability of a position and appropriate research interests

Prerequisite courses required:

- One year of General Biology is preferred. Where needed, supplementary courses or reading programs may be designed to provide background information of sufficient depth for the Program curriculum
- One course in applied or biological statistics (through regression and ANOVA)
- Additional prerequisite requirements may be set by individual faculty

Applications will be considered annually starting January 15 for both domestic US students and international students. Application to the PhD program is through CU Denver Admissions.

Degree Requirements

The PhD degree requirements comprise six phases. First, students must complete a minimum of 60 credits, including 30 dissertation credits. Up to 30 hours of graduate level courses from other programs may be transferred and counted toward the degree. Students must also pass the Preliminary Exam, form an Advisory Committee and an Examination Committee, meet the academic residency requirement, pass the comprehensive exam, and write and orally defend a dissertation.

Research-based PhD degree program requires

1. Completing 60 credits including 30 of dissertation (BIOL 8990)
2. Meeting minimum academic residency requirements
3. Passing the Preliminary Exam
4. Forming Advisory and Examination committees
5. Writing and defending research proposal
6. Passing the Comprehensive Exam
7. Writing and defending dissertation (including >1 publishable paper)

Required Courses

- BIOL 6764 - Biological Data Analysis (4 credits taken in the first year)
- BIOL 6002 - Biology Skills Sets - Pedagogy (2 credits taken in the first year)
- BIOL 7010 - Integrative and Systems Biology (3 credits taken in the first year)
- BIOL 6705 - Biological Research Workshop (4 credits total, taken two different times in the student's career)
- BIOL 6655 - Seminar (2 credits total, taken two different times in the student's career)
- BIOL 7050 - Special Topics (a minimum of 3 credits must be completed, but students may take up to 9 credits)

- BIOL 8990 - Doctoral Dissertation (30 credits must be completed after passing the Comprehensive Exam)

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: <http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/Doctorate/Pages/EdD.aspx>

Program Overview

Students completing this program earn a Doctorate of Education (EdD) in Leadership for Educational Equity. The EdD is a practice-based doctorate for professional leaders in P-20 or community-based educational contexts. The EdD prepares 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 equity and access to education. You will learn to translate research into practice, influence policy, use data effectively in decision-making, and organize individuals and groups to address challenges collaboratively and successfully.

This program reflects a cohort model. In addition to core courses, you select a concentration area (see the list below). Courses are offered in weekend, hybrid (part face-to-face, part online), online and/or summer intensive formats. Students follow their cohort in taking the prescribed coursework and experiences for three consecutive years. A five-year path is also available for students working full-time in the summer.

Course Work - 54 Semester Credits

- 6 credits - Equity core
- 6 credits - Leadership and Organizational Performance core
- 6 credits - Learning core
- 12 credits - Concentration area (select one)
- 9 credits - Research core
- 15 credits - Capstone (Dissertation in Practice)

Concentration Areas

Executive Leadership (with Licensure Option): is 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. Students working in P-12 schools may also choose either an administrator or a principal licensure option. Roles may include that of a director, deputy, superintendent or president.

Early Childhood Special Education/Early Childhood Education: is designed to introduce students to issues and practices in early childhood special education/early childhood education and to prepare students to provide leadership to improve outcomes for children with disabilities across early childhood settings. The program will prepare students who can act effectively as administrators in districts, agencies and programs to improve outcomes of all children, including children with disabilities.

Mathematics Education: students and faculty 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 situated 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.

Professional Learning and Technology (PLT): this concentration area brings together faculty and students seeking to support working educators in ongoing professional development (PD) and learning activities, helping them become more effective and productive in their jobs. The PLT focus addresses the PD needs of K-12 teachers but also those of higher educators and workplace learners. Applying principles of adult learning, instructional design and change leadership, we use a variety of methods (mentoring, coaching, site-based communities, e-learning resources, workshops etc.) to support professional growth and accountability. The PLT courses in the EdD program prepare you to assume leadership in professional learning programs at all levels (site-based, district- or organization-wide), applying the latest research and best practices of the profession.

Science Education: prepares 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.

Challenges to Opportunities to Achieve in Latino/a School Communities: this concentration will focus on leadership, organizational change and measurement, data-informed decision-making, and creating equity and excellence for all children. Students will look at school re-structuring for linguistic diversity, language education policy and politics, and issues of assessment and instruction for Latino/a students. Together with their faculty mentors, students will work with real data sets and authentic observations and apply their leadership skills to create real world solutions for change. **Funding available:** Students who are accepted into this cohort will receive scholarship funding for approximately half of the cost of the degree.

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-disciplinarily, 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.

Psychology, Clinical Health Psychology PhD

► Graduate School Rules apply to this program

Objectives of the Program

Clinical health psychology focuses the interaction between psychological, physiological, and environmental factors as they influence health and well-being. This emphasis includes focus on: 1) the development of effective disease prevention behavioral interventions for individuals and populations at high risk for medical problems; and 2) the development of strategies to help individuals who are already ill to manage their disease and to increase their ability to collaborate with medical professionals and improve their coping skills. A clinical health psychologist combines expertise in research on health psychology with training in clinical psychology. Students in this program are trained to work within the community to use clinical psychological skills and techniques to diagnose and treat mental health conditions, promote health and prevent illness, apply behavioral interventions in the treatment of illness, and improve the health care system. In addition to course work, students acquire expertise in research by completing both a master's thesis and doctoral dissertation. They demonstrate competence in clinical assessment and intervention through several applied practicum experiences, successful passage of the Comprehensive Clinical Competency Examination and successfully completing a pre-doctoral psychology 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 for receipt of all student information is December 1 for the following fall. You are responsible for making sure all materials are in on time. International students should be sure to submit all materials at least two weeks before this deadline (by November 15) so that they arrive at our department on time. Below is condensed information; see <http://www.ucdenver.edu/academics/colleges/CLAS/Departments/psychology/Pages/Psychology.aspx> 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 1 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 have been able to offer positions to 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.

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 master's degree 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 expected in preparation for application to pre-doctoral internships. Approximately 50% of required practica are typically conducted

in medical settings. Sites for practica training, include the department's own Psychological Services Center and 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 Training.

Demonstration of Clinical Competency:

During the second semester of their third year in the program students 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 CCCE 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.

Return to Department of Psychology

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 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 7700 - Clinical Research Methods
- PSYC 7710 - Multivariate Statistics
- PSYC 7713 - Advanced Statistics
- PSYC 7730 - Ethics and Professional Issues in Psychology
- 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 8938 - Pre-Doctoral Internship
- PSYC 8990 - Doctoral Dissertation
- PSYC 7410 - Assessment I: Personality
- PSYC 7420 - Assessment I: Intellectual and Cognitive Assessment
- PSYC 8910 - Advanced Clinical Practicum

Public Administration PhD

[Introduction](#)

► Graduate School Rules apply to this program

Program Director: Tanya Heikkila, PhD

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.

[Faculty](#)

Professors:

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 Teske, PhD, Princeton University

Associate Professors:

Allan Wallis, PhD, City University Graduate Center
Christine Martell, PhD, Indiana University
Tanya Heikkila, PhD, University of Arizona
Lori Hughes, PhD, Washington State University
Callie Rennison, PhD, University of Houston
Danielle M. Varda, PhD, University of Colorado Denver
Chris Weible, PhD, University of California-Davis

Assistant Professors:

Todd Ely, New York University
Lonnie Schaible, PhD, Washington State University
Benoy Jacob, PhD, University of Illinois at Chicago
John Ronquillo, PhD, University of Georgia

Research Professor:

Stephen Block, PhD, University of Colorado

Clinical Professor:

Malcolm Goggin, PhD, Stanford University

Students

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 four to six 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 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 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, Dissertation Proposal, 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 comprehensive exam that demonstrates their preparation for conducting dissertation research. At the proposal defense, 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 and have been certified for candidacy by his/her doctoral committee. After students are formally advanced to candidacy, they must complete 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 unenrolled 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, Executive Leadership Administrator License, and EdD and PhD with Administrative Leadership & Policy Studies concentrations

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Web site:

<http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/Pages/Administrative-Leadership-and-Policy-Studies.aspx>

Click on any of the following to go right to that information:

- Principal Licensure
- Master of Arts Degree
- Education Specialist Degree
- Executive Leadership Administrator Licensure Program
- EdD Leadership for Educational Equity with Principal or Administrator License
- PhD Education & Human Development with concentration in Administrative Leadership & Policy Studies

Faculty

For information about faculty in this area, visit <http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/FacultyandResearch/Pages/Our-Faculty.aspx>.

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. Alternatively, the administrator license may be required for district-level leadership positions in Colorado.

Principal Licensure Program

ALPS offers coursework that leads to eligibility to apply for the initial license for principal through the Colorado Department of Education. A passing score on the Principal PLACE content exam is also required for principal licensure through the Colorado Department of Education. Having earned an initial license,

those who go on to complete a district sponsored induction program may then apply for 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 submit performance-based assessments (PBAs) during the principal licensure program to LiveText, an online assessment system. PBAs not approved 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 for pursuing administrator (superintendent) licensure.

Principal Licensure Cohort Options

Typically, cohorts are comprised of 25 principal candidates who move through the four-semester principal licensure program together. We look for applicants to have a teaching or special services license plus a minimum of three years post-licensure experience. We welcome applicants from all districts into our principal licensure cohorts. However, we partner with metro-area districts to prepare leaders specifically for their schools.

Distance Learning Cohort

The Distance Learning cohort option has a long history of serving students who live far away from campus. Additionally, this cohort offers students a hybrid (online and face-to-face) course format. Students meet in the first summer for a three-day boot camp. In the fall, they experience two Friday/Saturday weekend sessions. And, they attend two more weekend sessions the following spring. During the second summer, they attend a culminating half-day session. The rest of the work is completed online.

Denver Public Schools

The DPS cohort option is one of the DPS Pathways to Principalship. The work in this cohort is focused on leadership for ELL (English Language Learner) student populations as well as cultural leadership. Instructors and students work closely with not only state and national standards, but also with the LEAD Framework to prepare principals. Students meet on one Saturday and two Tuesdays a month over four semesters. A new cohort starts each spring. Please review this information on the DPS website.

Jefferson County Public Schools

The JeffCo cohort option is offered in partnership with Jefferson County Public Schools. Courses occur on twelve Tuesday evenings during each of the four semesters. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced JeffCo administrators.

Northern Cohort

The Northern Cohort option is offered in partnership with the Boulder Valley School District for applicants from northern-metro districts. This cohort meets on Wednesday evenings during each of the four semesters of the program. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced district administrators.

CU South Denver Cohort

The CU South Denver cohort serves southern-metro districts (Douglas County, Cherry Creek, Littleton, Sheridan, Englewood, Lewis-Palmer and Colorado Springs School District 11). This cohort meets on twelve Tuesdays during each of four semesters at the Liniger Building at CU South Denver. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced district administrators.

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: 3 to 9

EDUC 5752 - Principal Administrator Licensing II. Semester Hours: 3 to 9

EDUC 5753 - Principal/Administrator Licensing III. Semester Hours: 3 to 9

EDUC 5754 - Principal or Administrator Licensing IV. Semester Hours: 3 to 9

Total: 32 Hours

MA Program

The MA is designed for those who do not already hold a graduate degree. Master's students will complete 9 semester hours beyond the 32 required in the licensure program, for a total of 41 semester hours of coursework. Candidates must also successfully complete a comprehensive exam paper, reflecting on how the three MA classes will help them in the role of principal.

For the MA degree, students must select at least one course in each of the following three areas plus complete the 32 semester hour principal license:

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

EDFN 5050 - Critical Issues in American Education Semester Hours: 3

CLDE 5140 - Multicultural Education Semester Hours: 3

CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdns Semester Hours: 3

Section C: Education & Human Development/Special Education

EDHD 6100 - Advanced Child Growth and Development Semester Hours: 3

EDHD 5110 - Human Learning Semester Hours: 3

EDHD 6140 - Social Contexts of Adolescence and Schooling Semester Hours: 3

EDHD 5200 - Social Psychology of Learning Semester Hours: 3

SPED 5140 - Advanced Assessment in Special Education. Semester Hours: 3

SPED 5401 - Action Research and Leadership 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 principal 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 apply for an initial administrator license through the Colorado Department of Education and prepare for a career as a superintendent or other district leader. In addition to coursework, a passing score on the Administrator PLACE content exam is also required for administrator licensure through the Colorado Department of Education. The 12-semester-hour administrator licensure program combines weekend meetings with online work and hands-on clinical practice-usually completed in participants' home districts:

EDUC 7500 - Strategic Human Capital Development

EDUC 7510 - Strategic Organizational Management

EDUC 7520 - Strategic System Improvement

EDUC 7530 - Strategic Leadership Development

These courses are differentiated for four student types: certificate students, administrator licensure students, EdS students, EdD students and PhD students. Learn more at www.ucdenver.edu/education/elp.

EdD Leadership for Educational Equity with Principal or Administrator License

Students interested in pursuing the principal or administrator license along with a doctorate should instead apply to the EdD Leadership for Educational Equity instead of to the MA or EdS Administrative Leadership & Policy Studies with Principal License or the Executive Leadership Administrator License. See the Ed Leadership for Educational Equity with Executive Leadership Principal or Administrator License for more information.

PhD Education and Human Development with concentration in Administrative Leadership and Policy

The Administrative Leadership & Policy Studies PhD concentration serves as a key area for those concerned about leadership in schools and a key focus for research by scholars in higher education. A crucial assumption the 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. See the PhD Education and Human Development for more information.

Early Childhood Special Education Specialist Licensure

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: 30 semester hours

ECSE specialist license: 33 semester hours

Master's degree plus ECSE specialist license: 39 semester hours

Master's degree plus ECSE specialist added endorsement: 33 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.

Principal Licensure

Administrative Leadership and Policy Studies

Requirements for Principal Licensure, the MA and EdS degrees, Executive Leadership Administrator License, and EdD and PhD with Administrative Leadership & Policy Studies concentrations

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Web site:

<http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/Pages/Administrative-Leadership-and-Policy-Studies.aspx>

Click on any of the following to go right to that information:

- Principal Licensure
- Master of Arts Degree
- Education Specialist Degree
- Executive Leadership Administrator Licensure Program
- EdD Leadership for Educational Equity with Principal or Administrator License
- PhD Education & Human Development with concentration in Administrative Leadership & Policy Studies

Faculty

For information about faculty in this area,

visit <http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/FacultyandResearch/Pages/Our-Faculty.aspx>.

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. Alternatively, the administrator license may be required for district-level leadership positions in Colorado.

Principal Licensure Program

ALPS offers coursework that leads to eligibility to apply for the initial license for principal through the Colorado Department of Education. A passing score on the Principal PLACE content exam is also required for principal licensure through the Colorado Department of Education. Having earned an initial license, those who go on to complete a district sponsored induction program may then apply for 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 submit performance-based assessments (PBAs) during the principal licensure program to LiveText, an online assessment system. PBAs not approved 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 for pursuing administrator (superintendent) licensure.

Principal Licensure Cohort Options

Typically, cohorts are comprised of 25 principal candidates who move through the four-semester principal licensure program together. We look for applicants to have a teaching or special services license plus a minimum of three years post-licensure experience. We welcome applicants from all

districts into our principal licensure cohorts. However, we partner with metro-area districts to prepare leaders specifically for their schools.

Distance Learning Cohort

The Distance Learning cohort option has a long history of serving students who live far away from campus. Additionally, this cohort offers students a hybrid (online and face-to-face) course format. Students meet in the first summer for a three-day boot camp. In the fall, they experience two Friday/Saturday weekend sessions. And, they attend two more weekend sessions the following spring. During the second summer, they attend a culminating half-day session. The rest of the work is completed online.

Denver Public Schools

The DPS cohort option is one of the DPS Pathways to Principalship. The work in this cohort is focused on leadership for ELL (English Language Learner) student populations as well as cultural leadership. Instructors and students work closely with not only state and national standards, but also with the LEAD Framework to prepare principals. Students meet on one Saturday and two Tuesdays a month over four semesters. A new cohort starts each spring. Please review this information on the DPS website.

Jefferson County Public Schools

The JeffCo cohort option is offered in partnership with Jefferson County Public Schools. Courses occur on twelve Tuesday evenings during each of the four semesters. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced JeffCo administrators.

Northern Cohort

The Northern Cohort option is offered in partnership with the Boulder Valley School District for applicants from northern-metro districts. This cohort meets on Wednesday evenings during each of the four semesters of the program. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced district administrators.

CU South Denver Cohort

The CU South Denver cohort serves southern-metro districts (Douglas County, Cherry Creek, Littleton, Sheridan, Englewood, Lewis-Palmer and Colorado Springs School District 11). This cohort meets on twelve Tuesdays during each of four semesters at the Liniger Building at CU South Denver. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced district administrators.

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: 3 to 9

EDUC 5752 - Principal Administrator Licensing II. Semester Hours: 3 to 9

EDUC 5753 - Principal/Administrator Licensing III. Semester Hours: 3 to 9

EDUC 5754 - Principal or Administrator Licensing IV. Semester Hours: 3 to 9

Total: 32 Hours

MA Program

The MA is designed for those who do not already hold a graduate degree. Master's students will complete 9 semester hours beyond the 32 required in the licensure program, for a total of 41 semester hours of coursework. Candidates must also successfully complete a comprehensive exam paper, reflecting on how the three MA classes will help them in the role of principal.

For the MA degree, students must select at least one course in each of the following three areas plus complete the 32 semester hour principal license:

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

EDFN 5050 - Critical Issues in American Education Semester Hours: 3

CLDE 5140 - Multicultural Education Semester Hours: 3

CLDE 5160 - Historical, Legal And Cultural Foundations For The Education Of Immigrant And Language Minority Stdn Semester Hours: 3

Section C: Education & Human Development/Special Education

EDHD 6100 - Advanced Child Growth and Development Semester Hours: 3

EDHD 5110 - Human Learning Semester Hours: 3

EDHD 6140 - Social Contexts of Adolescence and Schooling Semester Hours: 3

EDHD 5200 - Social Psychology of Learning Semester Hours: 3

SPED 5140 - Advanced Assessment in Special Education. Semester Hours: 3

SPED 5401 - Action Research and Leadership 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 principal 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

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administrator licensure program combines weekend meetings with online work and hands-on clinical practice-usually completed in participants' home districts:

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[EdD Leadership for Educational Equity with Principal or Administrator License](#)

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Endorsement Programs

Early Childhood Special Education Specialist Endorsement

Office:

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education@cudenver.edu

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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

Licensed 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. Upon program completion, teachers with a minimum of 3 years of licensed teaching experience can apply for the specialist-level endorsement. The teacher-level endorsement requires a teaching license, but does not require licensed teaching experience. In addition to coursework, a passing score on the Instructional Technology PLACE content exam is also required to apply for the endorsement through the Colorado Department of Education. Students should consult the ILT Current Student Resources website for complete program requirements.

For complete details about ILT programs, endorsement requirements and certificates, see the ILT website.

School Library Endorsement

Office: 999 18th St.

Telephone: 720-639-9228

Fax: 303-315-6311

E-mail: cpe@ucdenver.edu

Website:

<http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/MASTERS/SchoolLibrary/Pages/SchoolLibrary.aspx>

Faculty

Information about SLIL faculty is available online at

<http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/MASTERS/SchoolLibrary/Pages/SchoolLibrary.aspx>

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 21st Century Learning standards with the content standards of the classroom teacher. The program adheres to the constructivist theory of resource-based learning, teacher leadership, instructional coaching, and media literacy. 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.

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 a school librarian endorsement-only and a full master's program with a teacher-librarian endorsement. The endorsement requires a minimum of 24 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.

Consult with your program and faculty advisor for a current example of a program plan of study.

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.

24 Credit Endorsement Degree Plan of Study

Prefix: Course Title	Term	Credits
SCHL 5100: School Libraries in the Digital Age	Fall	4
SCHL 5030: Information Literacy & Reference	Fall	3
SCHL 5160: Managing School Library Programs	Spring	3
SCHL 5040: Information Storage & Utilization	Summer	2
SCHL 5200: Promoting Literacy through SL	Summer	3
SCHL 5913: School Library Field Experience	Fall	3
INTE 5300: Media Literacy & Maker Spaces	Summer	3
INTE 6999: Leadership & Practice	Fall	3
PLACE Test Passed (if seeking an endorsement in CO post-graduation)		0

Graduate Certificate Programs

Applied Statistics Graduate Certificate

► Graduate School Rules apply to this program.

Coordinator: Stephanie Santorico:

Telephone: 303-315-1714

E-mail: Stephanie.Santorico@ucdenver.edu

Web site: www.math.ucdenver.edu

There is a growing need for qualified statistical analysts of the ever-increasing amounts of data collected in business, industry, and government. The Certificates in Applied Statistics program is designed to give students a strong background in statistical methodology and data analysis in preparation for opportunities in the work force or for graduate studies.

Students will gain competence in such topics as descriptive statistics, estimation, confidence intervals, probability and inferential techniques, simple and multiple regression, analysis of variance, and more-advanced topics. Students can focus on a particular application area such as economics, psychology, sociology, geology or environmental science through the choice of an elective course and the data analysis project.

Admissions Requirements

Applicants must hold a baccalaureate degree (not necessarily in mathematics) from an accredited college or university (or demonstrate completion of work equivalent to the baccalaureate degree given at CU Denver) with at least a 3.0 grade point average (GPA). Students must also have 24 semester hours of mathematics, at least 18 of which are upper division courses with a grade of B- or better. These courses must include calculus 1, 2 and 3 as well as linear algebra and probability at the undergraduate level. Exceptions to admission criteria may be made on a case by case basis.

Certificate Requirements

Four courses and a 1 hour independent study are required as detailed below.

Two Fundamental Courses in Statistics

- MATH 5320 - Introduction to Mathematical Statistics
Offered: SPRING
- MATH 5387 - Applied Regression Analysis
Offered: FALL

One Advanced Applications Course

Topics vary from year to year. Course must be pre-approved by certificate coordinator and cannot be MATH 5830. Representative courses include:

- MATH 5394 - Experimental Designs
- MATH 6388 - Advanced Statistical Methods for Research
- MATH 6393 - Introduction to Bayesian Statistics

One Elective

- Any statistics course in the Department of Mathematical and Statistical Sciences at the 5000 level or higher (must be pre-approved by the Certificate Coordinator). MATH5830 cannot apply towards the certificate.
- 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
- SOCY 5183 - Seminar: Quantitative Data Analysis
- Equivalent course pre-approved by the Certificate Coordinator

Project Requirement

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 pre-approved by the Certificate Coordinator.

Additional Requirements

Students must maintain a 3.0 GPA or above in these courses with no credit given for courses with grades below B-. 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 must be taken in residency at University of Colorado Denver. Students must be enrolled in one course per year to maintain their status in the certificate program. Certificates must be completed within 3 years from matriculation.

Biochemistry Certificate

Students should meet with the chemistry major advisor to file a certificate plan prior to the semester of graduation. The certificate is available to degree seeking undergraduates, non-degree seeking graduate students and students pursuing a chemistry minor.

These degree requirements are subject to periodic revision by the academic department, and the College of Liberal Arts and Sciences reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with the Chemistry advisor to confirm the best plans of study before finalizing them.

A grade of 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 B or better in each class, and a minimum GPA of 3.0 among the Required Courses including electives counted toward the Certificate. Students must adhere to the Graduate School Rules for this program.

Certificate Requirements

Prerequisites

Prerequisites for the Certificate (these courses do not have to be completed at CU Denver but must have been completed within ten years of receipt of the Biochemistry Certificate):

- 2 semesters General Chemistry, with laboratories
- 2 semesters General Biology, with laboratories
- 2 semesters Organic Chemistry, with at least 1 semester laboratory

A grade of C(2.0, not C-) or better in each of the Prerequisites is required.

- CHEM 2031 - General Chemistry I
- CHEM 2061 - General Chemistry II
- CHEM 2038 - General Chemistry Laboratory I
- CHEM 2068 - General Chemistry Laboratory II
- BIOL 2051 - General Biology I
- BIOL 2061 - General Biology II
- BIOL 2071 - General Biology Laboratory I
- CHEM 3411 - Organic Chemistry I
- BIOL 2081 - General Biology Laboratory II
- CHEM 3421 - Organic Chemistry II
- CHEM 3418 - Organic Chemistry Laboratory I
- **OR**
- CHEM 3428 - Organic Chemistry Laboratory II

Required Courses

The required courses including electives must be completed at CU Denver with a grade of B or better in each class, and a minimum GPA of 3.0 among the Required Courses including electives counted toward the certificate. All courses must be taken within ten years of receipt of the Biochemistry Certificate.

Take **one** of the following Biochemistry courses:

- CHEM 4810 - General Biochemistry I
- **OR**
- CHEM 5810 - Graduate Biochemistry I

Take **one** of the following Biochemistry courses:

- CHEM 4820 - General Biochemistry II
- **OR**
- CHEM 5830 - Graduate Biochemistry II

Take:

- BIOL 3611 - General Cell Biology

Electives

Take **two** of the following elective courses in consultation with your certificate advisor:

- BIOL 3124 - Introduction to Molecular Biology

OR

- BIOL 4128 - Topics in Molecular Biology
- BIOL 3225 - Human Physiology
- BIOL 3832 - General Genetics
- BIOL 4064 - Advanced Cell Biology

OR

- BIOL 5064 - Advanced Cell Biology
- BIOL 4068 - The Cell Cycle

OR

- BIOL 5068 - The Cell Cycle
- BIOL 4125 - Molecular Biology Laboratory

OR

- BIOL 5125 - Molecular Biology Lab
- BIOL 4126 - Molecular Genetics

OR

- BIOL 5126 - Molecular Genetics
- BIOL 4144 - Medical Microbiology

OR

- BIOL 5144 - Medical Microbiology
- BIOL 4550 - Cell Signaling

OR

- BIOL 5550 - Cell Signaling
- CHEM 3011 - Inorganic Chemistry
- CHEM 3111 - Analytical Chemistry
- CHEM 4121 - Instrumental Analysis
- CHEM 4511 - Physical Chemistry: Thermodynamics and Kinetics
- CHEM 4521 - Physical Chemistry: Quantum and Spectroscopy
- CHEM 4828 - Biochemistry Lab
- 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
- PHYS 3452 - Biophysics of the Cell NM

Bioinnovation and Entrepreneurship Certificate

The Business Schools graduate certificates are primarily intended to give individuals with an undergraduate degree in any discipline access to business courses that can help them succeed in their current job or even help them launch their own company.

Students can pursue one of our graduate certificates, even if they are not CU Denver students, without taking the GMAT. Credit earned as a part of the certificate DOES count towards your graduate business degree, should you choose to pursue a degree here. One such certificate is our Bioinnovation and Entrepreneurship Certificate.

Bioinnovation and Entrepreneurship Certificate

The Certificate in Bioinnovation and Entrepreneurship is one-of-a-kind, and is geared to helping bioentrepreneurs achieve commercial success. Students have opportunities to participate in a number of Jake Jabs Center programs; including the annual business plan competition, internships in area businesses, speaker programs with local entrepreneurs, and connection with new ventures. Visit the Jake Jabs Center for Entrepreneurship to learn more about our entrepreneurship programs.

Bioinnovation Certificate Information

Commodities Certificate

The Business Schools undergraduate certificates are primarily intended for students currently pursuing a degree in any undergraduate discipline that want to expand their business knowledge to give themselves a leg up when they enter the work force. However, they can also be taken by students with only a high school diploma.

In addition, the Business Schools also offers graduate certificates which are primarily intended to give individuals with an undergraduate degree in any discipline access to business courses that can help them succeed in their current job or even help them launch their own company.

Students can pursue one of our undergraduate or graduate certificates in Commodities, even if they are not CU Denver students. Credit earned as a part of the certificate DOES count towards your undergraduate degree, should you choose to pursue a degree here. One such certificate is listed below:

Commodities Certificate

The Business School awards a Certificate (of completion) in Commodities to students completing three finance and commodities courses. Students completing the certificate will have an improved understanding of the complex commodities market. Topics covered include regulation, trading, financial fundamentals, investing, risk management and ethics. Please contact the Commodities Center for more information.

Democracy and Social Movements Graduate Certificate

► Graduate School Rules apply to this program.

Program Advisor: Lucy McGuffey

Office: Student Commons Building, Room 3217

Telephone: 303-315-1761

E-mail: lucy.mcguddy@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 peace building, 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 5140 - Design Studio IV

Total: 18 Hours

Emergency Management and Homeland Security Concentration

The graduate concentration in Emergency Management and Homeland Security is available as a concentration within the 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. Students completing this sequence will have the knowledge and skills necessary to assess and manage a broad range of hazards and disasters, and to understand the policy environment in which emergency management occurs.

Requirements

Students take two of the following three required courses as well as three elective courses approved by their advisor. The three elective courses may be drawn from the student's particular area of interest, such as policy and management, spatial analysis and quantitative assessment, or public safety.

- GEOG 5230 - Hazard Mitigation and Vulnerability Assessment
- PUAD 5650 - Public Policies for Homeland Security and Disasters
- PUAD 5450 - Law of All-Hazards Management

Entrepreneurship Certificate

The Business Schools undergraduate certificates are primarily intended for students currently pursuing a degree in any undergraduate discipline that want to expand their business knowledge to give themselves a leg up when they enter the work force. However, they can also be taken by students with only a high school diploma.

Students can pursue one of our undergraduate certificates, even if they are not CU Denver students. Credit earned as a part of the certificate DOES count towards your undergraduate degree, should you choose to pursue a degree here. One such undergraduate certificate is listed below:

Launchpad Entrepreneurship Certificate

This certificate can be earned in either downtown Denver at the Jake Jabs Center for Entrepreneurship or CU South Denver.

The Jake Jabs Center for Entrepreneurship is offering an affordable program in one of the fastest growing business segments in the country-Innovation and Entrepreneurship. All courses are taught by faculty from the Jake Jabs Center for Entrepreneurship at CU Denver. You will find many opportunities including scholarships, mentoring, and networking. You will gain skills that prepare you to start a successful business or become an entrepreneurial asset to an existing company.

Benefits:

- Experiential opportunities
- Condensed 8-Week courses
- Two convenient Denver locations
- Cost effective - Scholarships available
- No GPA requirements or prerequisites

For more details about Launchpad courses and registration, visit the Launchpad Certificate page.

The Business Schools also offers post-graduate certificates which are primarily intended to give individuals with an undergraduate degree in any discipline access to business courses that can help them succeed in their current job or even help them launch their own company.

Students can pursue one of our graduate certificates, even if they are not CU Denver students, without taking the GMAT. Credit earned as a part of the certificate DOES count towards your graduate business degree, should you choose to pursue a degree here. One of the post-graduate certificates is listed below:

A Certificate in Entrepreneurship gives students the ability to marshal resources to seize new business opportunities which have uncertain outcomes. The post-bachelors certificate introduces students to fundamental entrepreneurial concepts plus provides the flexibility to allow them to explore specialized areas of interest including cutting-edge social entrepreneurship, new venture design, finance structuring, legal issues, leadership, marketing and personal branding, new product development and business plan creation. Visit the Jake Jabs Center for Entrepreneurship to learn more about our entrepreneurship programs.

Environmental Policy, Management and Law Concentration/Graduate Certificate

The graduate concentration in Environmental Policy, Management and Law is available as a concentration within the MPA program, or as a stand-alone certificate for non-degree students. This concentration, which requires 15 credit hours (5 courses), provides an understanding of how our natural environment is governed and 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 core of the EPML program requires completion of two required graduate seminars, all taught by faculty who specialize in environmental affairs. Then students select three elective courses under faculty advisement.

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

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 - GIS Analysis
- URPL 6500 - Environmental Planning/Management
- 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 - Public Policies for Homeland Security and Disasters
- 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 Science Education Graduate Certificate

► Graduate School Rules apply to this program.

Certificate Advisor: Bryan Wee

E-mail: bryan.wee@ucdenver.edu

Introduction

Please click [here](#) to see Geography and Environmental Sciences Department information.

Certificate Objectives

1. Students will synthesize environmental science content with relevant educational practices
2. Students will recognize, understand and apply environmental science education in either formal or informal educational settings
3. Students will utilize education research methods to support disciplinary learning
4. Students will identify a broader set of career options (see list below)

Sample list of career options

- K-12 Teacher or curricular specialist
- UNICEF/UNESCO/World Heritage Foundation

- National Parks Service or U.S. Forest Service
- Non-profit organizations (e.g. Colorado Alliance for Environmental Education)
- Regulatory Agencies (e.g. U.S. Environmental Protection Agency)
- Environmental and/or Educational Consultancy Firms
- Adjunct lecturer or instructor

Program Delivery

This is both an on-campus and field-based program.

Declaring This Certificate

Please see the Certificate advisor.

General Requirements

[Click here for information about Academic Policies.](#)

Certificate Requirements

Required Courses (6 credit hours)

- ENVS 5340 - Equity & Culture in Science Education: Local/Global
- ENVS 5650 - Environmental Education

Electives (6 credit hours)

Select from the following list of electives. Students should consult with the certificate advisor about other courses that may count toward this requirement.

- ANTH 5170 - Culture and the Environment
- BIOL 5154 - Conservation Biology
- COMM 5282 - Environmental Communication
- GEOG 5265 - Sustainability in Resources Management
- GEOG 5335 - Contemporary Environmental Issues
- GEOG 5440 - Science, Policy and the Environment
- PSCI 5354 - Seminar: Environmental Politics and Policy

Gender-Based Violence Concentration/Graduate Certificate

A student may choose to complete a concentration in gender-based violence studies as part of the MCJ or MPA degree, or the gender-based violence program can be completed by non-degree students as a stand-alone graduate certificate. The program on gender-based violence provides an interdisciplinary perspective on crime, the formulation of laws and codes, the criminal legal system and its intersection with gender and violence. Students seeking a gender-based violence concentration must complete 15 semester hours related to gender-based violence, which are completed via intensive in-person and online hybrid courses that meet periodically throughout a two-year period.

Requirements

Students take the four specified courses below and one elective.

- PUAD 5910 - Nature and Scope of Interpersonal Violence
- PUAD 5920 - The Psychology of Interpersonal Violence
- PUAD 5930 - Interpersonal Violence Law and Policy
- PUAD 5940 - Interpersonal Violence Leadership, Advocacy, and Social Change

Total: 15 Hours

Geographic Information Science Graduate Certificate

► Graduate School Rules apply to this program.

GISci Certificate Advisor: Matt Cross

E-mail: matthew.cross@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 geo-spatial 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 may also be admitted. 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. 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 geo-spatial 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 GEOL 5070)
 - GEOG 5085 - GIS Applications for the Urban Environment
 - GEOG 5090 - Environmental Modeling with Geographic Information Systems
 - GEOG 5091 - Open Source Software for Geospatial Applications
 - GEOG 5092 - GIS Programming and Automation
 - 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 (Co-coordinator)

Telephone: 303-556-4172

E-mail: michael.hinke@ucdenver.edu

Contact: Austin Troy (Co-coordinator)

Telephone: 303-315-1006

Email: austin.troy@ucdenver.edu

Geospatial Information Science (GIS), known to some as "computer mapping," addresses the storage, management, analysis, synthesis, and display of spatial data and information. In the College of Architecture and Planning we use GIS to analyze and understand space, to answer the place-based questions posed by our stakeholders and our clients, and to create the planning- and research-oriented maps that are critical to communicating with stakeholders. Our work with GIS in the college is built on the many advances in Geospatial Information Science over the last 40 years.

This certificate program is intended for motivated people with a strong interest in the application of GIS to the design and planning professions. It is targeted both at students currently enrolled in a University of Colorado degree program who wish to add a credential to their degree, and working professionals who do not wish to enroll as degree students, but who wish to pursue a certificate to improve job skills.

Students who earn this Certificate through the College of Architecture and Planning at the University of Colorado Denver will exit the program with the following:

1. An understanding of GIS theory and concepts
2. Technical mastery of general GIS methods using ArcGIS, as well as familiarity with remote sensing

3. Familiarity with common public geospatial data sources, as well as metadata standards
4. Knowledge of data interoperability, including how to move data and maps from one software platform to another; examples of software include Adobe Creative Suite, 3D Studio Max, SketchUp, RhinoTerrain, ArcMap, and Quantum GIS
5. Specialized skills in geospatial technologies and methods related to the design and planning professions, including rendering and visualizations, infrastructure and transportation network analysis, cadastral mapping, site selection and analysis, geodesign, and many others

GIS is a rapidly growing field and an increasingly important job skill. GIS skills are showing up as requirements for architects, landscape architects and planners. Our GIS Certificate holders are currently working as: environmental planners, transportation planners, city planners, urban designers, landscape architects, and software developers.

A minimum of a 3.0 GPA in all GIS related course work is required to earn the GIS Certificate.

Course Requirements: 18 semester hours

Part 1: Introductory GIS class (3 semester hours)

- URPL 6250 - GIS Analysis
- LDAR 5540 - Introduction to GIS
- URPL 6800 - Special Topics: Urban and Regional Planning - Introduction to GIS

Part 2: Advanced GIS methods class (3 semester hours)

- URPL 6260 - Advanced Geo-Spatial Methods

Part 3 (3 semester hours)

For Planning and Design Track: Remote Sensing

- GEOG 5060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 5070 - Remote Sensing II: Advanced Remote Sensing
- OR-
- Boulder: GEOG 4093 - Remote Sensing of the Environment

For Landscape Architecture Track: Computer aided design

- LDAR 6642 - Landscape Architecture Digital Design Workshop
- LDAR 6840 - Independent Study

Part 4: Specialized advanced classes (9 semester hours)

- GEOG 5081 - Cartography and Computer Mapping
- GEOG 5090 - Environmental Modeling with Geographic Information Systems
- GEOG 5085 - GIS Applications for the Urban Environment
- GEOG 5230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 5095 - Deploying GIS Functionality on the Web
- CVEN 5382 - GIS Spatial Database Development
- CVEN 5385 - GIS Relational Database Systems
- CVEN 5800 - Special Topics - Geomatics for GIS
- LDAR 6686 - Special Topics: Landscape Architecture - Advanced Topics in GIS
- Any course from the Part 3 list (either track) not already used to fulfill the Part 3 requirement
- Up to 3 semester hours from a studio course where intensive GIS is used. This must be done by submitting a petition to the coordinators describing the GIS activities undertaken.
- Up to 3 semester hours for an internship using GIS in a planning or design context, also by petition. Please see the coordinators before starting the process of looking for an internship.
- Other relevant courses by permission

Part 5: Portfolio

- A digital portfolio of GIS-related work completed for work undertaken in classes in the College of Architecture and Planning is required as part of the completion of the GIS Certificate.
- Requirements for the portfolio will be made available to students when they sign up for the GIS Certificate.

Note: Students pursuing the GIS Certificate in the College of Architecture and Planning are expected to use GIS data and software in their design and planning related classes.

Students who have completed all of the requirements for the GIS Certificate must submit their GIS Certificate form at the start of the semester that they plan to graduate.

Eligibility and Application

The certificate program is open to all. Applicants already enrolled in a University of Colorado degree program need only submit an internal application to the CAP GIS certificate program. Applicants who are not currently enrolled in a degree program must apply to CU Denver as non-degree seeking students and also submit an application to the CAP GIS certificate program. More details on the process are available from the coordinator.

Health Humanities and Ethics Graduate Certificate

Designed for health professional students, graduate students, professionals, and community members, the Certificate in Health Humanities and Ethics will offer an accessible, affordable and enriching study of humanities and ethics as applied to health and health care. The certificate program will enroll a diverse group of participants from across the mountain west and will provide interdisciplinary and interprofessional approaches and applications including:

- foundational courses in health humanities and ethics
- targeted studies in bioethics and environmental ethics; health communications and rhetoric of medicine and health; humanistic writing about medicine; history, literature and the visual arts as they relate to health care; and sociology and anthropology as related to health care and the lifecycle.
- resources for those interested in related service projects in health and health care and in service on hospital ethics committees as well as further graduate study.

While many health sciences campuses or graduate programs in the liberal arts offer electives or activities designed to enhance professional and graduate student education and training in health humanities and ethics, very few institutions have a certificate program with dedicated faculty, core courses and focused studies in both fields. The proposed certificate will be unique in bringing together the health professions and liberal arts within a single integrated program. We will also market to professionals and community members who are interested in a deep exploration of the moral, social and cultural dimensions of health care. Primary goals are:

- To understand health care from different perspectives and disciplines
- To recognize, resolve and reflect on challenging ethical and social issues in health, health care, health policy and research
- To examine the values and meanings of health, disease, illness and disability among patients, families, health care providers, and communities.

Total Credit Hours: 15

Normal Completion: 2 years

Required Courses

HEHM 5000 Foundations of Health Humanities

This course introduces students to the rich field of the health humanities. Taking a topical approach, students will examine the ways a variety of disciplines analyze the relationships among health, medicine, and society, and what the health humanities can teach us about biomedical theory and health care training and practice. Students will develop historical, literary, philosophical, and rhetorical understandings of medicine and health, paying particular attention to power relationships and categories of difference, as well as explore the wealth of imaginative materials that represent the human experience of illness, suffering, disability and death. Prereq: Graduate standing or instructor permission. Max hours: 3 Credits.

HEHM 5100 Foundations of Ethics: Issues in Health

This course introduces students to the foundations of ethical reasoning and analysis. The course focuses on the fundamental logical principles of ethics as well as on those classical, but still influential and contemporary, ethical theories that guide ethical decision-making. Since ethics in the abstract is of little real world relevance, the subject matter will be approached through the lens of issues surrounding health care, public health, and research at both the level of individual decision making as well as that of public policy. Prereq: Graduate standing or instructor permission. Max hours: 3 Credits.

TOTAL 6 REQUIRED CREDITS

Elective Courses

The following is a representative list of related elective courses that may be taken towards the certificate; it is not comprehensive. Students should consult with the director of this program in order to ensure that the courses they are taking can be applied to this requirement.

- ANTH 5014 - Medical Anthropology: Global Health
 - ANTH 5040 - Anthropology of Food and Nutrition
 - ANTH 5290 - Anthropology and Public Health
 - ANTH 5800 - Special Topics in Medical Anthropology
 - COMM 5500 - Health Communication
 - COMM 5550 - Rhetorics of Medicine & Health
 - ENGL 5745 - Humanistic Writing About Medicine and Biology
 - HIST 5345 - Gender, Science, and Medicine: 1600 to the Present
 - HIST 5346 - Medicine and Society: the Ancients to the Present
 - HUMN 5013 - Philosophical Problems in the Social Sciences and the Humanities
 - PHIL 5242 - Bioethics
 - PHIL 5250 - Environmental Ethics
 - SOCY 5050 - Health Disparities
 - SOCY 5110 - Sociology of Health Care
 - SOCY 5650 - Sociology of Adulthood and Aging
 - SSCI 5013 - Philosophical Problems in the Social Sciences and Humanities
- TOTAL 9 ELECTIVE CREDITS

Historic Preservation Graduate Certificate

[Graduate Certificate in Historic Preservation](#)

The University of Colorado Denver Graduate Certificate in Historic Preservation, an interdisciplinary collaboration between the College of Architecture and Planning and the History Department, is awarded by the History Department. The Certificate Program is open to any qualified graduate student or non-degree seeking student with a bachelor's degree.

The certificate provides CU Denver students and the wider community with foundational knowledge and skills in Historic Preservation, a field that enhances studies and professional work in areas such as architecture, heritage tourism, historic preservation, national park interpretation, public history, urban studies and related fields.

The certificate can stand on its own, can complement a graduate program in Architecture, History, or Urban Planning; or can serve as a beginning to graduate studies. It can also be a stepping stone to further work in Historic Preservation with the College of Architecture and Planning's Masters of Science in Historic Preservation.

Applicants must have a B.A. or B.S. degree.

Interested students must register their intent to complete the Certificate with the Director of the Public History & Preservation Program, CU Denver History Department. Students already enrolled in a graduate program at CU Denver can begin their Certificate work at any point during their studies. Non-degree students must apply to the university as a non-degree seeking student.

All certificate coursework for History students must be approved by the History Department's Historical Preservation advisor, Prof. Tom Noel (tom.noel@ucdenver.edu). CAP students must work with CAP Historic Preservation advisor, Prof. Chris Koziol (christopher.koziol@ucdenver.edu).

The History Department expects that all courses in the certificate program will be taken in residency at CU Denver. Students must maintain a 3.0 GPA, and no course below B- will count towards the certificate.

Graduate students in the History Department can count courses for both their major or minor fields and the requirements for the certificate.

Certificate in Historic Preservation: 18 credits

Required Courses (6 hours):

- HIST 5232, Historic Preservation or HIST 6989, Historic Preservation Seminar (listed as a topics course - check for the title) (3 credits) One of these courses is offered once a year by the History Department
- HIPR 6010 Preservation Theory and Practice (3 credits) This course is offered every fall by the College of Architecture & Planning

Optional Courses (to complete the 18 credit hours required). These remaining 12 credit hours should be distributed so that at least 3 hours are from each of the two participating colleges, CLAS and CAP, and hence, no more than 9 hours from the other. Be sure to consult your preservation advisor (Profs. Koziol or Noel) on your course selection.

- HIST 6950, History Thesis Project (3 credits) or HIST 6952 Public History Project related to preservation (3 credits)
- HIST 5939, Heritage Tourism (3 credits)
- HIST 5939 or HIPR 6930 Internship (3 credits)
- HIST 5229, Colorado Historical Places (3 credits) HIST 6989, Historic Preservation Seminar (3 credits)
- HIST 5240 , National Parks History (3 credits)
- HIST 5228, Western Art & Architecture (3 credits)
- ARCH 6210, History of American Architecture (3 credits)
- ARCH 6212, History of Modern Architecture (3 credits)
- HIPR 6110, Regionalism(s) & Vernacular in Context (3 credits)
- HIPR 6210, Survey, Significance, and Recognition (3 credits)

Admissions Requirements

1. Applicant must have a B.A. or B.S. Degree
2. Applicant applies to the Director of the Public History & Preservation Program, CU-Denver History Department

3. Applicants must provide a transcript, statement of purpose, and two letters of recommendation

Integrated Construction, Management + Leadership Graduate Certificate

Contact:

Business School: Linda Brooker

303.315.8200

linda.brooker@ucdenver.edu

College of Engineering and Applied Science | Civil Engineering: Roxanne Pizano

303.556.2871

roxanne/pizano@ucdenver.edu

College of Architecture and Planning: Leo Darnell

303-315-1015

leonard.darnell@ucdenver.edu

The colleges of Architecture and Planning, Engineering and Applied Science, and the Business School at the University of Colorado Denver have formed a partnership to create an innovative and interdisciplinary leadership program. The Integrated Construction, Management and Leadership (ICML) Certificate is a four-course certificate designed to launch designers, architects, engineers, and business entrepreneurs into the world of construction or rapidly update an existing skill-set.

All classes are held in the Liniger Building at CU South Denver, located east of Interstate 25 on Lincoln Avenue in Parker, Colorado. Go to the CU South Denver website to see the class schedule.

As disciplinary identities, project boundaries, and conventional markets blur, leadership, management skills, and civic mindfulness are key aspects to successfully navigating a rapidly transforming 21st century built environment. Many new ideas are emerging involving how projects are conceived and delivered that better integrate the complex relationships among finance, marketing, design, and construction. These new interdisciplinary management and construction techniques streamline the construction of increasingly large-scale and complex projects. Leadership skills are necessary for success in the central activities of contemporary engineering, architectural design firms, business, government, and non-profits. The demands of project management in firms today involve more than a specific technical expertise in a given field. Firms need creative individuals who can effectively innovate, execute, and communicate across disciplines. This new certificate program capitalizes on these changes and the new opportunities they present.

ICML is an interdisciplinary program designed for working or aspiring professionals, and upper level students interested in expanding their knowledge base in the fields of engineering, architecture, business, and their intersections. The courses include introductions to and explorations of current trends in the construction industry, project management and building information modeling (BIM). The final course is an integrated course that brings together top executives in the architecture, engineering and construction (AEC) business to discuss current industry topics and provides students an opportunity to apply principles from the various fields to case study projects.

- Students can earn graduate level credit for each course they successfully complete and the ICML Certificate upon completion of all four courses.
- They can take the courses as a non-degree student or while enrolled in a degree program at the University of Colorado Denver.
- The courses can be used to partially fulfill requirements for the MEng in Construction Engineering and Management or other eligible graduate programs such as the Master of Architecture degree upon acceptance into these programs.
- Approved courses in this Certificate may also count toward related Certificates offered by the Business School and Construction Engineering and Management.

Certificate Requirements

Four courses totaling 12 semester hours:

- ARCH 6420 - Integrated Practice & BIM Technology
- BANA 6650 - Project Management
- CVEN 5235 - Advanced Construction Engineering
- CVEN 5238 - Integrated Construction Leadership

If these courses are not offered in a given semester with permission other courses with similar scope and level may be substituted.

Total: 12 Hours

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. CIVHC is a program of the Center on Domestic Violence in CU Denver's School of Public Affairs, developed 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 interpersonal violence in health care settings
- Thorough understanding of the health ramifications of interpersonal violence

- Skill and comfort with screening all patients for interpersonal 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.

Four courses are required for completion of this certificate. Please contact the Director of the Center on Domestic Violence at barb.paradiso@ucdenver.edu for more information.

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 - Public Budgeting and Finance
 - 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 Organizations Graduate Concentration/Certificate

The graduate concentration in Nonprofit Organizations is available as a concentration within both the MPA and MCJ degree, or as a stand-alone certificate for non-degree students. This program prepares students to become innovative and critical thinkers in the areas of nonprofit organizational management and public policy, with a unique approach that bridges theoretical knowledge with real-world experience. As 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. Graduates are able to span 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.

Requirements

Students take two required courses as well as three electives approved by the concentration advisor, for a total of 15 hours.

- PUAD 5110 - Seminar in Nonprofit Management
- PUAD 5140 - Nonprofit Financial Management

Post-Graduate Certificates

The Business School's post-graduate certificates are primarily intended for professionals in the community with a master's degree, in any business discipline, from an AACSB accredited institution. These certificates are offered in a variety of specialized business areas from Business Analytics to Information Systems. The courses are designed to allow individuals that are already in the business community to bring their skills up to date - or to explore a new area of business that interests them.

Students are required to complete four graduate courses in order to receive a post-graduate certificate. Students can pursue one of our post-graduate certificates, even if they are not CU Denver students. Credit earned as a part of the certificate DOES count towards a second graduate business degree, should you choose to expand your knowledge further with one of our complete MS or MBA degrees.

We currently offer post-graduate certificates in:

- Bioinnovation and Entrepreneurship
- Business Intelligence
- Business Strategy
- Change Management
- Commodities
- Digital Health Entrepreneurship
- Enterprise Risk Management
- Enterprise Technology Management
- Entrepreneurship
- Finance
- Health Information Technology
- Human Resources Management
- Information Systems
- International Business

- Leadership
- Managing for Sustainability
- Marketing
- Risk Management and Insurance
- Sports and Entertainment Management
- Technology Innovation and Entrepreneurship
- Web and Mobile Computing

Some of the post-graduate certificates require prior knowledge in the area being studied, Please contact an advisor for specific courses and requirements for the post-graduate certificates.

Public, Nonprofit and Community Leadership Graduate Certificate

[Introduction](#)

Please click here to see Political Science department information.

The Public, Non-Profit and Community Leadership Graduate Certificate is offered in two different formats: the traditional, on-campus format, and the New Directions weekend classes format, with classes offered in CU Denver facilities south of Denver (either at the Liniger Building in Parker, or at Fort Lewis College in Durango). Students can choose either of these two pathways to complete the certificate.

Public, Non-Profit and Community Leadership Graduate Certificate: On-Campus Pathway

The CU Denver Political Science Department's Public, Non-Profit and Community Leadership Certificate engages students in a focused curriculum in the community organizing and development field, including field placements in internships with local community partners. The program curriculum is anchored around the study and practice of local civic engagement, especially in traditionally marginalized communities. Students will be connected to meaningful work and networking opportunities in those communities, through community-based coursework, internships and service-learning opportunities. The certificate program provides critical education and effective skills-based training for students seeking careers in community organizing and development, as well as for students seeking more active citizenship and civic engagement. Students will be prepared to become change agents in their communities, while developing possible career paths in community-based advocacy/service organizations, public agencies, or international development work.

Curriculum and Credit Requirements: On-Campus Pathway

The graduate certificate requires four "public leadership" courses (12 credits), which must include PSCI 5914 - Community Development and an appropriate field study (internship) course (with the default course being PSCI 5944 - CU in the City).

Required Public Leadership Courses (6 credits)

- PSCI 5914 - Community Development

Field Placement Requirement, fulfilled by ONE of the following courses:

- PSCI 3914 - The Urban Citizen
- PSCI 5944 - CU in the City
- PSCI 5939 - Internship (including opportunities in the Colorado State Legislature)

Elective Public Leadership Courses (6 credits)

- PSCI 5025 - Local Governance and Globalization
- PSCI 5094 - Seminar: Urban Politics
- PSCI 5024 - State Politics: Focus on Colorado
- PSCI 5206 - Social Movements, Democracy and Global Politics
- PSCI 5265 - Social Justice And Globalization
- PSCI 5274 - Conflict Resolution and Public Consent Building
- PSCI 5324 - Politics, Public Policy and Leadership
- PSCI 5414 - Organizational Change Agents
- PSCI 5555 - International Women's Resistance
- PSCI 5008 - Graduate Topics in Political Science (when relevant and approved by Program Advisor)
- PSCI 5840 - Independent Study: PSCI (when relevant and approved by Program Advisor)
- Public Leadership Course credits may also be earned through study abroad in the Sustainability in Berlin program (3 credits) or the Development in East Africa program (3 credits).

Public, Non-Profit and Community Leadership Graduate Certificate: Center for New Directions Weekend Pathway

The Center for NEW DIRECTIONS in Politics and Public Policy offers a formally transcribed graduate certificate in Public, Nonprofit, and Community Leadership to meet the needs of individuals in formal public and nonprofit positions that require development of their leadership competencies and for individuals in informal community leadership positions who want to build their knowledge, skills, and effectiveness. This certificate will help human resources directors in local governments and nonprofit organizations who are seeking additional leadership development for the department heads and other individuals they want to groom for succession to leadership. The certificate is open to non-degree seeking students (with or without an undergraduate degree) as well as students formally admitted to the MA in Political Science and to upper division undergraduates seeking to get a head start on their graduate studies.

The certificate can be earned entirely through classes offered in a weekend format.

Students who successfully complete the certificate program would be allowed to transfer in the credits received in the certificate program to complete the Master's Degree in Political Science with emphasis in Politics and Public Policy offered through the Center for NEW DIRECTIONS in Politics and Public Policy in the Political Science Department at the University of Colorado Denver. Transfer of credits would follow completion of the formal application for admission and follow the established review for acceptance of transfer credits.

Prospective students for programs other than the MA in Political Science with emphasis in Politics and Public Policy should verify with their proposed graduate program to determine the number of credit hours that may be accepted for transfer credit for other MA degrees.

Curriculum and Credit Requirements: New Directions Weekend Pathway

9 credit hours must be successfully completed with a grade of B- or better. All courses are currently offered in the extended studies weekend format at the Liniger Building in Parker and on the Fort Lewis College campus in Durango, CO.

Required Courses

Take both of the courses below:

- PSCI 5324 - Politics, Public Policy and Leadership
- PSCI 5644 - Ethical Responsibilities of Leaders

Elective Courses

Take one of the courses below:

- PSCI 5009 - Politics of the Budgetary Process
- PSCI 5084 - Local Government and Administration
- PSCI 5274 - Conflict Resolution and Public Consent Building
- PSCI 5374 - Public Priorities for the 21st Century
- PSCI 5414 - Organizational Change Agents

*Please note, required courses will be offered every year. Some combination of elective courses will be offered each year to assure sufficient choice for certificate completion in that year.

Admissions and Declaring This Certificate

Any student wishing to declare this certificate should schedule a certificate advising appointment with either the Department Chair, the Department Undergraduate Advisor, or the NEW DIRECTIONS office in order to register their intent to pursue the Community Leadership Certificate and to develop a curriculum plan.

Individuals who are not currently admitted students seeking the graduate Public, Nonprofit, and Community Leadership Certificate would use the "quick admit" feature online or the extended studies admissions form previously developed by the College of Liberal Arts and Sciences.

Students requesting admission to the MA in Political Science program would need to complete the application for admissions (undergraduate or graduate, respectively) and be formally admitted by the department (and Graduate School for prospective graduate students) prior to requesting transfer of their certificate credits for their degree program. Please note: completion of the Graduate Certificate in Public, Nonprofit, and Community Leadership does not obligate the individual to pursue further education. The Certificate can be earned as a stand-alone University certificate, or it can be applied to a current or future degree program.

Currently admitted upper division undergraduates should schedule certificate advising appointments with the NEW DIRECTIONS office to register their intent to pursue the Public, Nonprofit, and Community Leadership Certificate. Then they may register for classes as usual.

Risk Management and Insurance Certificate

The Business Schools undergraduate certificates are primarily intended for students currently pursuing a degree in any undergraduate discipline that want to expand their business knowledge to give themselves a leg up when they enter the work force. However, they can also be taken by students with only a high school diploma.

Students can pursue one of our undergraduate certificates, even if they are not CU Denver students. Credit earned as a part of the certificate DOES count towards your undergraduate degree, should you choose to pursue a degree here. One such certificate is our Risk Management and Insurance Certificate. Information for that certificate is below:

Broaden your knowledge of Risk Management and Insurance (RMI) by completing a one-year Certificate in RMI Studies from the University of Colorado Denver. By completing three semester-long RMI courses, all available online, and meeting prior finance course requirements, you will be on your way to enhancing your personal knowledge and providing your employer with RMI awareness and professional skills. See the Risk Management and Insurance Certificate page for more information.

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

Strategic Communication Graduate Certificate

► Graduate School Rules apply to this program.

Strategic Communication 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 Strategic Communication is designed to provide students with the principles and theories that guide the work of public relations practitioners in commercial, public and nonprofit contexts.

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's 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 coursework required for the master's degree.

Recipients of the Undergraduate Certificate in Strategic Communication are ineligible to complete this certificate.

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 Strategic Communication after the completion of the required courses. To apply, students must complete the certificate application, attach it to an unofficial transcript, and return it to Dr. Hamilton Bean in room 3010 of the Student Commons 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 after final grades are posted for the semester.

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.

Additional information about the Graduate Certificate in Strategic Communication may be obtained from Dr. Hamilton Bean, Department of Communication, Student Commons Building, 1201 Larimer Street, Suite 3010, 303-315-1909, Hamilton.Bean@ucdenver.edu.

Certificate Requirements

The Graduate Certificate in Strategic Communication requires 12 semester hours (four courses):

- COMM 5051 - Advanced Strategic Communication
- COMM 5240 - Organizational Communication
- COMM 5939 - Internship
- An elective at the graduate level from the College of Arts & Media, School of Business, the School of Public Affairs, or the Anschutz Medical Campus. The elective must be approved in consultation with the Department of Communication.

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. Requests for approval for substitute courses, including an explanation for the substitution, must be made in writing to Dr. Hamilton Bean.

Sustainability Certificate

The Business Schools graduate certificates are primarily intended to give individuals with an undergraduate degree in any discipline access to business courses that can help them succeed in their current job or even help them launch their own company.

Students can pursue one of our graduate certificates, even if they are not CU Denver students, without taking the GMAT. Credit earned as a part of the certificate DOES count towards your graduate business degree, should you choose to pursue a degree here. Listed below is information on one such certificate.

The Managing for Sustainability Certificate is designed for business professionals seeking a deeper understanding of sustainability and/or the technical knowledge to lead sustainability initiatives in their companies. To earn a Managing for Sustainability Certificate, students complete four semester-long graduate Business School courses. Two of the courses provide a foundation in sustainable business practices then, students select their remaining two certificate classes covering such specialized areas as finance, marketing, accounting, and social entrepreneurship. See the Managing for Sustainability Certificate page for more information.

Sustainable Urban Agriculture Graduate Certificate

Certificate Advisor: Amanda Weaver

E-mail: amanda.weaver@ucdenver.edu

[Introduction](#)

Please click [here](#) to see Geography and Environmental Sciences Department information.

The goal of the certificate program is to provide GES students advanced training in sustainable urban agriculture through the integration of university classroom study and field-based practicum conducted at the department's field research station. Requirements for the certificate are therefore divided between on-campus courses and field courses.

Upon successful completion of the certificate, students will:

- Have knowledge of the history of urban farming
- Understand the modern agro-food system
- Participate in sustainable urban agricultural practices

Program Delivery

This is both an on-campus and field-based program.

Declaring This Certificate

- Please see the Certificate advisor.

General Requirements

- Click here for information about Academic Policies.

Certificate Requirements

Take **all** of the following courses (6 credit hours):

- ENVS 5450 - Urban Food and Agriculture: Perspectives and Research
- ENVS 5460 - Sustainable Urban Agriculture Field Study I

Take **four** of the following elective courses (12 credit hours):

- ENVS 5470 - Sustainable Urban Agriculture Field Study II
- GEOG 5060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 5085 - GIS Applications for the Urban Environment
- GEOG 5265 - Sustainability in Resources Management
- GEOG 5640 - Urban Geography: Denver and the U.S.
- GEOG 5680 - Urban Sustainability: Perspectives and Practice
- GEOG 5939 - Internship (a sustainable agriculture internship with a local food/ urban agriculture community organization)

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, which can be completed through CU Online, 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 5601 - Principles and Practices of Second Language Acquisition
- ENGL 5651 - Second Language Writing

Total: 9 Hours

Elective Courses

- ENGL 5093 - Teaching of Writing
- An alternative elective such as a special topic course (i.e., ENGL 5190 Special Topics in Rhetoric and Writing) approved by the program advisor.
- An internship (ENGL 5939 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 600. Those who score below 600 but above 500 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.

Water Resources Engineering for Urban Watershed Management Graduate Certificate

The Certificate of Water Resources Engineering for Urban Watershed Management is for students who seek an interdisciplinary curriculum in the field of hydrologic and hydraulic engineering to analyze water-related problems and to obtain knowledge pertaining to applied hydrology, flood channel design, urban runoff modeling, flood mitigation and floodplain management. To earn the certificate, applicants must already have a baccalaureate degree and complete four core courses offered in the Hydrology and Hydraulics Graduate Engineering Program or equivalent continuing education courses equaling 12 semester hours of work. Applications for this certificate shall be submitted for the Hydrology and Hydraulics Graduate Engineering Program for approval. Call the Department of Civil Engineering at 303-556-2871 for more information.

Women's and Gender Studies Graduate Certificate

► Graduate School Rules apply to this program.

The Women's and Gender Studies Graduate 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 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 - Nature and Scope of Interpersonal Violence
- PUAD 5920 - The Psychology of Interpersonal Violence
- PUAD 5930 - Interpersonal Violence Law and Policy
- 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 Hour

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.

Programs

Graduate Degree Programs

Accounting MS

Program Director: Gary Colbert

Telephone: 303-315-8443

E-mail: Gary.Colbert@ucdenver.edu

The master of science in accounting is a flexible program that allows students to design individualized courses of study including three designated specializations; auditing and forensic accounting, controllership and financial leadership, and accounting and information systems audit and control.

The program provides students the opportunity to acquire a thorough understanding of financial and managerial accounting, auditing, accounting information systems, and taxation in preparation for successful careers in public or private accounting, as well as government or nonprofit accounting. Students have ample opportunity to choose coursework necessary to sit for the CPA exam, the CMA exam and other similar professional accounting certifications.

We offer a 4+1 program that allows our current undergraduate accounting students to pursue the master of science degree if they achieve a cumulative GPA of 3.25 or higher without taking the GMAT test. Students are also allowed to replace two undergraduate required accounting courses with two graduate accounting courses. Interested students please contact the Business School advising team.

The MS accounting degree consists of 30 required hours + 15 hours that may be waived based on prior coursework (9 hours of prerequisites + 6 hours of Common Body of Knowledge (CBK):

Accounting Prerequisites: (9 hours)

The MS in accounting requires completion of the following accounting prerequisites.

Required Prerequisite Courses (advisor will evaluate transcript for possible waivers, grades must be a C or better to be considered for possible waiver):

- ACCT 6031 - Intermediate Financial Accounting I
(Equivalent undergraduate course: ACCT 3220: Intermediate Financial Accounting I)
- ACCT 6032 - Intermediate Financial Accounting II
(Equivalent undergraduate course: ACCT 3230 Intermediate Financial Accounting II)
- ACCT 6070 - Management Accounting
undergraduate equivalent: ACCT 3320

Common Body of Knowledge (CBK): (6 hours)

Depending on prior coursework, students may be required to take up to two background courses (advisor will evaluate transcript for possible waivers in the CBK):

- BUSN 6530 - Data Analysis for Managers
- BUSN 6620 - Applied Economics for Managers

Accounting Core: (12 hours)

Students may not receive graduate credit for undergraduate coursework and may not retake any course successfully completed at the undergraduate level with a grade of "C" or better. An advisor will evaluate prior coursework to determine possible 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 Capstone: (6 hours)

- ACCT 6250 - Seminar: Financial Accounting
- ACCT 6260 - Seminar: Managerial Accounting

Accounting Electives: (6 hours)

ACCT or MTAX courses numbered 6000 or higher excluding ACCT 6030, 6031, 6032, and ACCT 6070. Courses contributing to one of the specializations may be used to meet this elective requirement.

Free Electives: (6 hours)

Accounting careers are increasingly diverse, cutting across many industries, business functions and decisions. Accountants may eventually work as auditors, systems analysts and designers, financial planners, tax specialists, cost analysts, financial planning and budget officers, controllers, chief financial officers, or chief executive officers. Students will be better prepared for their careers if they develop additional competencies in a related field, which may be chosen from a single discipline such as finance, information systems, business analytics, 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, BANA, CMDT, ENTP, FNCE, INTB, ISMG, MGMT, MKTG, RISK, or MTAX excluding ACCT 6030, 6031, 6032, and ACCT 6070.

Total: 30 hours

Accounting Specializations

Students may use a combination of accounting and free electives to complete one of the following specialization options. Auditing and Forensic Accounting Specialization or the Controllershship and Financial Leadership Specialization. Students will follow the MS Accounting requirements above for the specializations. If students wish to pursue the Accounting and Information Systems Audit and Controll Specialization follow the requirements listed below that specialization.

Auditing and Forensic Accounting Specialization

Complete one or two of the required courses below:

- ACCT 6025 - Auditing Practice
- ACCT 6620 - Seminar: Auditing and Other Assurance Services

If you completed two of the above, complete two below. If you completed one of the above, complete three below:

- ACCT 6024 - Advanced Financial Accounting
- ACCT 6080 - Accounting for Government and Nonprofit Organizations
- ACCT 6150 - Taxation of Business Entities
- ACCT 6280 - Accounting Ethics
- ACCT 6320 - White Collar and Financial Crimes
- ACCT 6330 - Fraud Auditing
- ACCT 6340 - Financial Statement Analysis
- ACCT 6360 - Fraud Examination
- ACCT 6370 - International Accounting
- ACCT 6380 - Forensic Accounting
- ACCT 6442 - Accounting: Professional Research and Communications
- ACCT 6470 - Internal Auditing
- ACCT 6510 - Accounting and Information Systems Processes and Controls

Controllershship and Financial Leadership Specialization

Complete this required course:

- ACCT 6220 - Controllershship: Financial Strategy and Controls

Complete three additional courses from the list below:

- ACCT 6024 - Advanced Financial Accounting
- ACCT 6080 - Accounting for Government and Nonprofit Organizations
- ACCT 6150 - Taxation of Business Entities
- ACCT 6280 - Accounting Ethics
- ACCT 6285 - Accounting and Finance for Sustainability
- ACCT 6340 - Financial Statement Analysis
- ACCT 6350 - Current Issues in Professional Accounting
- ACCT 6370 - International Accounting
- ACCT 6442 - Accounting: Professional Research and Communications
- ACCT 6520 - Issues in Oil and Gas Accounting

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 note, this degree plan is 30 hours + 12 hours prerequisite hours + 9 hours in Common Body of Knowledge (CBK) as listed below.

Accounting Prerequisites: (12 hours)

Undergraduate course equivalents must be completed with a "C" or better. Undergraduate grades below a "C" will not be passing for the accounting prerequisites and the student will be required to retake the course or take the graduate equivalent below. Advisor will evaluate transcript for possible waivers.

- ACCT 6031 - Intermediate Financial Accounting I
- ACCT 6032 - Intermediate Financial Accounting II
- ACCT 6070 - Management Accounting
- ACCT 6054 - Accounting Systems and Data Processing

Common Body of Knowledge (CBK): (9 hours)

Advisor will evaluate transcript for possible waivers in the CBK.

- BUSN 6530 - Data Analysis for Managers
- BUSN 6620 - Applied Economics for Managers
- BUSN 6540 - Legal and Ethical Environment of Business

AISAAC Common Courses: (12 hours)

Complete the following required courses:

- ACCT 6020 - Auditing Theory
- ACCT 6510 - Accounting and Information Systems Processes and Controls
- ISMG 6040 - Business Process Management
- ISMG 6830 - IT Governance and Service Management

Accounting Core: (9 hours)

Complete the following required Core courses:

- ACCT 6620 - Seminar: Auditing and Other Assurance Services
- ACCT 6250 - Seminar: Financial Accounting
- ACCT 6260 - Seminar: Managerial Accounting

Additional Degree Requirements: (9 hours)

Select 3 of the following courses:

- ACCT 6340 - Financial Statement Analysis
- ACCT 6360 - Fraud Examination
- ACCT 6470 - Internal Auditing
- ISMG 6080 - Database Management Systems
- ISMG 6180 - Information Systems Management and Strategy
ISMG 6180 is cross-listed with BUSN 6610. Students may not receive credit for both ISMG 6180 and BUSN 6610.
- ISMG 6220 - Business Intelligence Systems and Analytics
- ISMG 6430 - Information Systems Security and Privacy

Administrative Leadership and Policy Studies (non-licensure): Early Childhood Education Concentration

The ALPS-MA Concentration Area in Early Childhood Education was developed for alumni of the Buell Early Childhood Leadership Certificate and serves to prepare leaders for positions in early childhood education. Buell alumni will transfer 15 of the credits earned as part of the Buell Early Childhood Leadership Certificate to this master's degree, and will complete an additional 15 credit hours to obtain the ALPS MA: Early Childhood Education degree. The content of this concentration focuses on leadership for equity and social justice.

This 30 credit hour degree is designed to be completed in approximately one year after completion of the one year Buell Early Childhood Leadership Certificate program. Curriculum focuses on leadership for equity and social justice and consists of an additional 15 credit hours of coursework.

Administrative Leadership and Policy Studies (non-licensure): Higher Education Leadership Concentration

The ALPS-MA (non-licensure) concentration in Higher Education Leadership serves to prepare leaders for positions in Higher Education or community based settings with the knowledge and skills necessary to support student success in accessing and completing college. Related career paths include higher education administration, student affairs, or college access programs. This 30 credit hour degree consists of four leadership courses, one research course and five courses within Higher Education and Student Affairs. Graduates of this program will possess the knowledge and skills to work as effective leaders and change agents for promoting diversity and inclusion in higher education and college access and success settings.

This 30 credit hour degree is designed to be completed in approximately two years. Students will complete four leadership courses, one research course and five courses within Higher Education and Student Affairs.

Administrative Leadership and Policy Studies (non-licensure): Urban Education Concentration

The ALPS-MA Concentration Area in Urban Education serves to prepare leaders for positions of advocacy, change, and leadership in critical areas in urban education. The content of the concentration focuses on the history of schooling, curriculum theory, educational policy, and school reform. Graduates of this program will be prepared for advocacy roles and leaders of change.

This 30 credit hour degree is designed to be completed in approximately two years. Curriculum focuses on the history of schooling, curriculum theory, educational policy and school reform.

Administrative Leadership and Policy Studies EdS with Principal Licensure

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 of faculty advisor approved coursework that constitute an area of focus, in addition to the 32 required in the principal licensure program. Candidates must also successfully complete a comprehensive exam paper in the final semester, reflecting on how the three EdS classes will help them in the role of principal.

Administrative Leadership and Policy Studies MA with Principal Licensure

The MA is designed for those who do not already hold a graduate degree. Master's students will complete 9 semester hours beyond the 32 required in the licensure program, for a total of 41 semester hours of coursework. Candidates must also successfully complete a comprehensive exam paper in the final semester, reflecting on how the three MA classes will help them in the role of principal.

For the MA degree, students must select at least one course in each of the following three areas plus complete the 32 semester hour principal license:

Section A

Educational Research - Choose one course:

- RSEM 5100 - Basic Statistics
- RSEM 5110 - Introduction to Measurement
- RSEM 5120 - Introduction to Research Methods

Section B

Families and Communities or Language Literacy & Culture - Choose one course:

Families and Communities

- CLDE 5180 - Working with Communities and Families
- COUN 5170 - Issues In Family Studies
- COUN 6140 - Counseling Children, Adolescents and Their Parents
- ECED 5060 - Working with Families and Communities
- HDFR 5010 - Family and Cultural Diversity

- HDFR 5040 - Latino Families in School and Communities
- HDFR 5045 - Abuelos (Grandparents) Latino Families
- HDFR 5075 - Family Policy & Law
- HDFR 5080 - Global Family Resource Management
- HDFR 6000 - Family Theories
- LCRT 5815 - Family Literacies in Diverse Communities
- SPED 5300 - Family, Professional, and Community Collaboration

Language, Literacy & Culture

- CLDE 5010 - Foundations of Language & Culture in Education
- CLDE 5070 - Linguistic Analysis of English
- CLDE 5140 - Language, Culture & Educational Equity
- CLDE 5160 - History & Law of Bilingual & Immigrant Education
- CLDE 5170 - Race, Class and Culture in Public Schools
- CLDE 5800 - Language Variation & Implications for Teaching
- LCRT 5020 - Reading Development, Instruction and Assessment
- LCRT 5810 - Oral & Written Language & Literacy
- SCHL 5200 - Promoting Literature in Schools
- SPED 5780 - Literacy Intervention for Exceptional Learners

Section C

Learning & Development or Diversity & Inclusion - Choose one course:

Learning & Development

- COUN 5130 - College Student Development
- COUN 5400 - Career Development
- COUN 6230 - Developmental Counseling in Schools: Prevention & Intervention
- ECED 5070 - Social Competence and Classroom Supports
- ECED 5102 - Introduction to Developmentally Appropriate Curriculum
- ECED 5104 - Advanced Developmentally Appropriate Curriculum
- ECED 5110 - Advanced Infant and Toddler Development:
- ECED 5310 - Professional Development
- EDHD 5110 - Human Learning
- EDHD 5180 - Psychology of Gifted, Talented and Creative Children
- EDHD 5200 - Social Psychology of Learning
- EDHD 5240 - Cognition and Instruction
- EDHD 6100 - Advanced Child Growth and Development
- EDHD 6140 - Social Contexts of Adolescence and Schooling
- EDHD 6200 - Human Development Over the Life Span
- EDHD 6230 - Mind, Brain, and Education
- EDHD 6350 - Theories of Personality Development and Change
- EDHD 6600 - Motivation in Contexts
- EDHD 6750 - Designing Environment for Learning and Development
- INTE 5320 - Games and Learning

- INTE 5340 - Learning with Digital Stories
- SPED 5151 - Slashing Stigmas: Promoting Positive Behaviors
- SPSY 5600 - Behavior Analysis and Intervention

Diversity & Inclusion

- COUN 5500 - Diversity, Inclusion, Social Justice in Higher Education
- ECED 5210 - Overview of Infant Toddler Autism Services
- ECED 6100 - Medical and Physiological Aspects of Development
- SCED 5340 - Equity & Culture in Science Education: Local/Global
- SPED 5000 - Universal Design for Learning (UDL)
- SPED 5010 - Intentional Interventions for Exceptional Learners
- SPED 5030 - Understanding (dis)Ability in Contemporary Classrooms
- SPED 5050 - Assessment & Advocacy for Multilingual Learners
- SPED 5500 - Transition and Secondary Methods in Special Education

Anthropology MA

- Graduate School Policies and Procedures 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: archeology 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

Our MA program in cultural anthropology offers a unique focus on 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, health disparities, community-driven wellness practices, visual storytelling, social media designed to promote health equities, and language and communication in health care contexts.

Faculty members take a variety of theoretical approaches to the topic, but our program is distinguished by its applied and engaged perspectives. A particular strength of our program is its integration of theoretical knowledge with community- and field-based training opportunities and challenges. We prepare students for careers in nonprofit and community groups, non-governmental organizations, advocacy, public health, health care institutions, and health sciences research; our graduates also attend doctoral programs at selective institutions. Courses in the department are complemented by electives in other departments (sociology, biology, psychology, history, geography, political science) and programs on the CU Denver campus (public affairs, education, health administration) and at the Anschutz Medical Campus (Schools of Medicine, Public Health, Pharmacy and Nursing).

Courses

As part of the MA degree, students may take between 6 and 18 credits of electives in this track, choosing from:

- ANTH 5000 - Special Topics in Anthropology
- ANTH 5014 - Medical Anthropology: Global Health
- ANTH 5040 - Anthropology of Food and Nutrition
- ANTH 5060 - Evolutionary Medicine
- ANTH 5080 - Global Health Practice
- ANTH 5090 - Drug Syndemic
- ANTH 5150 - Human Biocultural Adaptability
- ANTH 5180 - The Nature of Power
- ANTH 5290 - Anthropology and Public Health
- ANTH 5300 - Migrant Health
- ANTH 5350 - Anthropology of Globalization
- ANTH 5450 - Development and Conservation: Contemporary Issues
- ANTH 5460 - Development and Conservation: Theory and Practice
- ANTH 5600 - Medical Anthropology
- ANTH 5800 - Special Topics in Medical Anthropology
- ANTH 5200 - Gender in Cross-Cultural Perspective

Note: Students are encouraged to take elective courses in GIS mapping (geography), ecology (biology/anthropology), public policy, public health, epidemiology and biostatistics as it is relevant to their course of study.

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

DEGREE TOTAL HOURS

Thesis Option: 30 Hours (including 4-6 hours of thesis)

Non-Thesis Option: 36 Hours

Applied Geography & Geospatial Science MA

- Graduate School Policies and Procedures apply to this program

Program Director: Anne Chin

Office: North Classroom, 3522

Telephone: 303.556.3958

Fax: 303.556.6197

E-mail: anne.chin@ucdenver.edu

Web site: Applied Geography & Geospatial Science MA

Introduction

In the United States and around the world, balancing the preservation of the natural environment with the imperatives of economic development along with concerns for social well-being has led to a growing demand for broadly trained individuals who can identify and understand pressing social and environmental issues, collect and analyze relevant data, and develop and implement innovative solutions. Graduates of the M.A program in Applied Geography and Geospatial Science will have the knowledge, training, and tools to become leaders in this rapidly growing field.

The program's research focus is human-environment interaction, a longstanding hallmark of the discipline of Geography. Within this area of critical geographic inquiry, the program emphasizes geospatial science, a federally recognized STEM subject area that includes geographic information systems (GIS) as well as computer cartography, remotely sensed image analysis, and spatial statistics. Students apply their geospatial research skills in the context of hands-on, faculty-led research projects that stress professional development through community engagement and interactive service learning.

Requirements for Admission

Applicants must hold a Bachelor's degree from an accredited institution.

The University of Colorado Denver has a minimum requirement of 3.0 undergraduate grade point average (GPA) for applicants to the Graduate School. The number of applicants admitted to the MA in Applied Geography & Geospatial Science in any year depends, in part, on space availability. The program is competitive, and we generally discourage applicants whose undergraduate GPA is below 3.0. Notification of acceptance or refusal for admission into the program is mailed to the applicant approximately six weeks after the deadline for submission of applications.

Application Process

We accept applications once per year, **before or on March 1st**, for admission in the following fall. As part of the admission review process, applicants are required to submit: a graduate application, statement of purpose that articulates the goals of pursuing a graduate degree in this program, a writing sample, a minimum of three letters of recommendation (academic references are preferred), and official transcripts from all institutions previously attended. GRE scores are also required from domestic students with an undergraduate GPA below 3.0 and all international students.

Financial Aid

There are three types of financial aid available: teaching assistant student hourly positions; 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 assistance at the time of admission to the program. Continuing students will be regularly apprised of available aid and positions. All other aid should be requested through the CU Denver Financial Aid

Office, Student Commons Building 5th floor, Campus Box 125, P.O. Box 173364, Denver, CO 80217-3364.
Telephone: 303-315-1850.

Internships

Students in the Applied Geography & Geospatial Science MA program are strongly encouraged to contact the Experiential Learning Center for internships and paid positions related to geographical 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.

Degree Requirements

The program is offered by the faculty of the Department of Geography and Environmental Sciences in the College of Liberal Arts and Sciences. Students undertake 36 credit hours over a two-year period. These 36 hours include required core classes (9 credit hours), a required service learning studio (3 credit hours), and required geo-spatial science coursework (12 credit hours). Students can elect to undertake either of two tracks: the first "coursework" track involves a further 12 hours of elective courses, whereas the second "thesis" track involves 9 hours of electives, and preparation of a written thesis (3 credits).

Thesis Option

33 hours of coursework + 3 thesis hours:

- GEOG 6300 - Foundations Seminar in Human-Environmental Interaction (3 hours)
- GEOG 6700 - Integrated Methods (3 hours)
- GEOG 6750 - Research Design (3 hours)
- GEOG 6800 - Community-Based Research Practicum (3 hours)
- 12 hours of Geospatial Science courses
- 9 hours of Elective courses (up to 6 hours can be taken outside the Department of Geography & Environmental Sciences, as approved by advisor)
- GEOG 6950 - Master's Thesis (3 hours)

Non-thesis Option

36 hours of coursework:

- GEOG 6300 - Foundations Seminar in Human-Environmental Interaction (3 hours)
- GEOG 6700 - Integrated Methods (3 hours)
- GEOG 6750 - Research Design (3 hours)
- GEOG 6800 - Community-Based Research Practicum (3 hours)
- 12 hours of Geospatial Science courses
- 12 hours of Elective courses (up to 6 hours can be taken outside the Department of Geography & Environmental Sciences, as approved by advisor)

Notes

1. Many of the electives have prerequisites; students must have met these requirements in order to take the course.
2. Courses applied to either a certificate* or an MA degree may later be applied toward the other if all pertinent coursework is completed within a fiveyear time period.
3. Students should fill out and submit all relevant department forms for their files. Importantly, all petitions for course substitutions and identification of where courses fit as electives, with the subsequent approval/denial, should be submitted to this file.
4. By the end of the first semester, each student should identify and declare whether or not s/he is pursuing the thesis or non-thesis option. If intending to pursue the thesis option, the student should identify and gain agreement from a content advisor for guiding the thesis, filling out and submitting the appropriate departmental form.
5. Many of the electives have pre-requisites; students must have met these requirements in order to take the course.
6. Students may transfer up to 9 hours of approved graduate-level credit into the program. These courses must be approved by the Graduate Director and they may not replace core courses.
7. Students may count up to 6-credit hours of independent, with a maximum of 3-credit hours per independent study towards elective credit in the major as approved by the Graduate Director. No more than 3 credit hours of independent study may be taken with the same instructor and they may not be taken in the same term.
8. Students may count up to 6-credit hours of internship in total, but 3-credit hours per internship and per entity (sponsorship may be with same professor sponsor)
9. Students may not count 4000-level courses towards electives in the program; this may be petitioned to the Graduate Committee in exceptional cases.
10. Students may take a maximum of 2 online courses, or petition to the GES Graduate Committee beyond two.
11. Students may enroll in thesis preparation and writing hours only after submission of signed committee form, which requires approval of the thesis proposal.
12. Students will not receive a grade for thesis preparation and writing hours until the thesis is successfully defended.
13. Students must follow the graduate school deadlines for submission of paperwork for the graduation application, comprehensive exam, and any other deadlines. Links to these can be found on the GES/MS website:
<http://www.ucdenver.edu/academics/colleges/CLAS/Departments/ges/Programs/MasterofScience/Pages/Fo rms.aspx>
14. work submitted for the environmental sciences options must have a grade of *B* (3.0) or better.
 - * GES offers Geospatial, Environmental Education, and Urban Agriculture independent graduate certificates. These certificates may be earned without entrance into the MS in environmental sciences program. (See the Geographic Information Science Graduate Certificate, Sustainable Urban Agriculture Graduate Certificate, and Environmental Science Education Graduate Certificate descriptions.)

Applied Mathematics MS

- Graduate School Policies and Procedures 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 (subject to approval); 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, 5010, 5012-5015, 5017, 5198, 5250, and 5830.

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 either complete the degree requirements for an MS without concentration area or must fulfill specific course work requirements for one of the following areas of specialization:

- Applied Probability
- Applied Statistics
- 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 www.math.ucdenver.edu/ms

Course Requirements for the M.S. Degree without a Concentration Area

Students must complete at least three courses chosen from the following list. Note that MATH 6131 (Real Analysis) can be used both to satisfy the analysis core requirement and as one of the three courses satisfying this requirement.

Additional course options may be added later at the discretion of the Department of Mathematical and Statistical Sciences, e.g., as new courses are introduced to the graduate program.

- MATH 5135 - Functions of a Complex Variable
- MATH 5310 - Probability
- MATH 5320 - Introduction to Mathematical Statistics
- MATH 5350 - Mathematical Theory of Interest
- MATH 5351 - Actuarial Models
- MATH 5410 - Modern Cryptology
- MATH 5432 - Computational Graph Theory
- MATH 5446 - Theory of Automata
- MATH 5490 - Network Flows

- MATH 5593 - Linear Programming
- MATH 5610 - Computational Biology
- Any MATH course at the 6000 level or above

Concentration Area Requirements

Applied Statistics

Take all of the following courses:

- MATH 5310 - Probability
- MATH 5320 - Introduction to Mathematical Statistics
- MATH 5387 - Applied Regression Analysis
- MATH 6388 - Advanced Statistical Methods for Research

And, take one of the following courses:

- MATH 5394 - Experimental Designs
- MATH 6376 - Statistical Computing
- MATH 6380 - Stochastic Processes
- MATH 6384 - Spatial and Functional Data Analysis
- MATH 6393 - Introduction to Bayesian Statistics
- MATH 7384 - Mathematical Probability
- MATH 7826 - Topics in Probability and Statistics
- An additional course given prior approval by the student's advisor and the Director of the Program in Statistics.

Applied Probability

Take all of the following courses:

- MATH 5310 - Probability
- MATH 5792 - Probabilistic Modeling
- MATH 6380 - Stochastic Processes

And, take one of the following courses:

- MATH 6131 - Real Analysis
- MATH 7381 - Mathematical Statistics I

Discrete Mathematics

Take four of the following courses:

- MATH 5410 - Modern Cryptology
- MATH 5490 - Network Flows
- MATH 5793 - Discrete Math Modeling
- MATH 6404 - Applied Graph Theory
- MATH 7405 - Advanced Graph Theory
- MATH 7409 - Applied Combinatorics

- MATH 7410 - Combinatorial Structures
- MATH 7413 - Modern Algebra I
- MATH 7419 - Mathematical Coding Theory
- MATH 7421 - Projective Geometry
- MATH 7821 - Topics in Projective Geometry
- MATH 7823 - Topics in Discrete Math

Mathematics of Engineering and Science

Take three of the following courses:

- MATH 5387 - Applied Regression Analysis
- MATH 5779 - Math Clinic
- MATH 5791 - Continuous Modeling
- MATH 5792 - Probabilistic Modeling
- MATH 5793 - Discrete Math Modeling
- MATH 5794 - Optimization Modeling
- MATH 6735 - Continuum Mechanics

And, take two of the following courses:

- MATH 5660 - Numerical Analysis I
- MATH 5661 - Numerical Analysis II
- MATH 5733 - Partial Differential Equations
- MATH 6653 - Introduction to Finite Element Methods
- MATH 7663 - Finite Difference Methods for Partial Differential Equations
- MATH 7665 - Numerical Linear Algebra

Numerical Analysis

Take all of the following courses:

- MATH 5660 - Numerical Analysis I
- MATH 5661 - Numerical Analysis II

And, take three of the following courses:

- MATH 5593 - Linear Programming
- MATH 5733 - Partial Differential Equations
- MATH 6595 - Computational Methods in Nonlinear Programming
- MATH 6653 - Introduction to Finite Element Methods
- MATH 6735 - Continuum Mechanics
- MATH 7667 - Introduction to Approximation Theory
- MATH 7663 - Finite Difference Methods for Partial Differential Equations
- MATH 7665 - Numerical Linear Algebra
- MATH 8664 - Iterative Methods in Numerical Linear Algebra
- MATH 8660 - Mathematical Foundations of Finite Element Methods

Operations Research

Take all of the following courses:

- MATH 5593 - Linear Programming
 - MATH 5792 - Probabilistic Modeling
- And, take two of the following courses:
- MATH 5390 - Game Theory
 - MATH 5490 - Network Flows
 - MATH 5779 - Math Clinic (with approval)
 - MATH 5794 - Optimization Modeling
 - MATH 6595 - Computational Methods in Nonlinear Programming
 - MATH 7593 - Advanced Linear Programming
 - MATH 7594 - Integer Programming
 - MATH 7595 - Advanced Nonlinear Programming
 - MATH 7825 - Topics in Optimization

Architecture MArch

In Colorado's only graduate architecture program, we prepare students for entry into the profession and licensure. Our mission is to lead in the discovery, communication and application of knowledge in the discipline of architecture by integrating theory and practice. In this collaborative educational model, environmental, economic, social, cultural, aesthetic and ethical concerns are fundamental.

Our program responds to and aligns with the evolving nature of professional practice. Collaborative work environments prize critical thinkers, problem-solving team players, builders and leaders with excellent communication skills. Recognizing that the practice of architecture is now global, we provide students with international perspectives and experiences giving them a competitive edge when they enter the profession.

Students whose undergraduate degree was not a design degree will take about 3 ½ years to complete; those who have an undergraduate design degree will likely receive credit for courses previously taken and can complete typically in about two years. The program provides the skills and bodies of knowledge nationally specified for graduate study in architecture and is fully accredited by the National Architectural Accrediting Board (NAAB).

Prerequisites

Students must complete the prerequisites of college-level trigonometry and physics before enrolling in the MArch program or must complete ARCH 5000 Math and Physics for Architects. This course is offered in the summer on a pass/fail basis and meets the prerequisite requirements. This class does not count toward the number of credits required for the M.Arch.degree.

Architecture skills workshop is recommended for students who do not have a background in architectural drawing, model making or digital graphics work. 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 Tracks

There are two curriculum tracks leading to the MArch degree, depending on the student's background.

Six Studio Track - 105 Semester Hours

This course of study allows students without a pre-professional degree to pursue a professional Master of Architecture degree in a minimum of three years. The curriculum follows a prescribed course of fundamental core courses and six design studios. Applicants must hold a baccalaureate degree from an accredited university in any field.

Four Studio Track - 60 Semester Hours

This course of study allows students with a pre-professional degree to pursue a professional Master of Architecture degree in a minimum of two years. The curriculum follows a prescribed sequence of core courses and four design studios. Applicants must hold a Bachelor of Science in Architecture, Bachelor of Art in Architecture or Bachelor of Environmental Design in Architecture to be considered for this path. All degrees awarded by universities outside the United States will be reviewed on a case-by-case basis and the admissions committee will determine the appropriate track.

Six Studio Track

Curriculum Overview

The curriculum for the Master of Architecture (M.Arch.) program is divided into six major areas of study, totaling 105 semester hours:

• Design Studios and Seminar	39 semester hours
• Representational Studies including required elective	6 semester hours
• Historical/Cultural Studies including required elective	12 semester hours
• Technological studies including required elective	21 semester hours
• Professional studies	12 semester hours
• Open Electives	15 semester hours

A wide array of electives in these areas allows students to tailor their graduate studies to their own interests. Of the 15 general elective semester hours, nine must be fulfilled with courses taken in the Architecture Department. Advanced standing in core course work can be given for prior architectural studies. Students may choose to take elective courses in the summer session. It is highly suggested that students use the summers to study abroad or participate in a professional internship.

Course Sequence

This schedule shows the recommended sequence of courses. To modify this schedule, students should consult their CAP academic advisor.

First Year

Fall

- ARCH 5110 - Design Studio I

- ARCH 5210 - Introduction to Architecture
- ARCH 5350 - Structures I
- ARCH 5510 - Architectural Graphics
- Professional Studies or Elective Requirement

Total: 18 Hours

Spring

- ARCH 5120 - Design Studio II
- ARCH 5220 - History and Theory Architecture I
- ARCH 5360 - Structures II
- Professional Studies or Elective Requirement
- Professional Studies or Elective Requirement

Total: 18 Hours

Second Year

Fall

- ARCH 5130 - Design Studio III
- ARCH 5230 - History and Theory Architecture II
- ARCH 5310 - Building Construction I
- Professional Studies or Elective Requirement
- Professional Studies or Elective Requirement

Total: 18 Hours

Spring

- ARCH 5140 - Design Studio IV
- ARCH 5330 - Sustainable Systems I
- Professional Studies or Elective Requirement
- Professional Studies or Elective Requirement

Total: 18 Hours

Third Year

Fall

- ARCH 5340 - Sustainable Systems II
- ARCH 6150 - Design Studio V
- Professional Studies or Elective Requirement
- Professional Studies or Elective Requirement
- Professional Studies or Elective Requirement

Total: 18 Hours

Spring

- ARCH 6170 - Design Studio VI
- ARCH 6171 - Integration Seminar
- Professional Studies or Elective Requirement
- Professional Studies or Elective Requirement

Total: 15 Hours

Four Studio Track

Curriculum Overview

The Four Studio Track curriculum for the Master of Architecture (M.Arch.) program is divided into six major components, totaling 60 semester hours in residence at University of Colorado Denver:

• Design Studios and Seminar	27 semester hours
• Representational Studies required elective	3 semester hours
• Historical/Cultural Studies required elective	3 semester hours
• Technological studies required elective	3 semester hours
• Professional studies	9 semester hours
• Open Electives	15 semester hours

A wide array of electives in these areas allows students to tailor their graduate studies to their own interests. Of 15 general elective semester hours, nine must be fulfilled with courses taken in the Architecture Department. Students may choose to take elective courses in the summer session. It is highly suggested that students use the summers to study abroad or participate in a professional internship.

In order for a student to complete the course of study within the 60 semester hours (two years of study) a student must have completed the following courses with a grade of B or better:

- 4 design studios (five or six credits each)
- 2-3 course sequence covering the history of architecture
- 1 course introduction to the theory of architecture
- 2 course sequence on sustainable environmental control systems
- 2 course sequence on structures addressing statics, material mechanics, structural analysis, and design of simple structural elements and systems
- 2 course sequence on building materials and construction
- 1 course on architectural visualization and representation
- 1 course on Building Information Modeling

Above courses not completed by the time the student enrolls in the program will be added onto the 60 semester hours and will need to be completed at the University of Colorado Denver prior to graduation. An official review of the student's previous course work will be conducted in the spring following admissions and will be sent to the student upon the receipt of the student's intent to attend.

Course Sequence

This schedule shows the recommended sequence of courses. To modify this schedule, students should consult their CAP academic advisor.

First Year

Fall

- ARCH 5130 - Design Studio III
- ARCH 5430 - Social Context of Design
- Required or Open Elective
- Required or Open Elective

Total: 15 Hours

Spring

- ARCH 5140 - Design Studio IV
- ARCH 5450 - Sustainable Design Practices
- Required or Open Elective
- Required or Open Elective

Total: 15 Hours

Summer (optional)

Second Year

Fall

- ARCH 6150 - Design Studio V
- ARCH 5410 - Professional Practice
- Required or Open Elective
- Required or Open Elective

Total: 15 Hours

Spring

- ARCH 6170 - Design Studio VI
- ARCH 6171 - Integration Seminar
- Required or Open Elective
- Required or Open Elective

Total: 15 Hours

Summer (optional)

Bioengineering MS

- Graduate School Policies and Procedures 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 one to two years with the choice of a project or thesis, either of which may be completed in academia or industry. Program details are available on the Department of Bioengineering website at ucdenver.edu/bioengineering.

Biology MS

- Graduate School Rules apply to this program.

Graduate MS Program Director: Michael Greene

Office: Science, 4111

Telephone: 303-556-5610

E-mail: Michael.Greene@ucdenver.edu

Website: clas.ucdenver.edu/biology/grad.html

Requirements for Admission

- A BA/BS from an accredited institution awarded within the last 10 years (validation of current content may be required)
- Minimum undergraduate GPA: 3.0
- General GRE test: minimum 50% performance in each section (quantitative, verbal, and analytical writing)
- TOEFL: required for international applicants from countries in which English is not the official language
- 3 letters of recommendation
- Official transcripts from all attended institutions
- Students are required to contact faculty in advance. Prior to application, applicants must have identified and contacted an available Faculty Advisor to ensure availability of a position and appropriate research interests

Prerequisite courses required:

- One year of general biology (lecture and laboratory)
- One year of any combination of chemistry, physics or mathematics
- One course in applied or biological statistics (through regression and ANOVA)
- Additional prerequisite requirements may be set by individual faculty

Application deadline is January 15 for both domestic U.S. and international students. Application to the master's in biology program is through CU Denver Admissions.

Degree Requirements

Students matriculate into the research-based MS degree program. Under unusual circumstances, students and/or advisors may petition for a student to switch into the coursework-based MS degree program. The research-based MS program requires a minimum of 30 credits, and the coursework-based MS program requires a minimum of 32 credits. No double-counted courses will be applied to the degree. A maximum of 12 hours of graduate level courses may be transferred and counted toward the degree in either program. Both programs additionally require the student to meet minimum academic residency requirements, to form an advisory committee and to deliver and orally defend written work before the advisory committee, which constitutes the final exam for both programs as required by the Graduate School.

Research-based MS degree program requires

1. Completing 30 credits including 3-6 thesis (BIOL 6950)
2. Meeting minimum academic residency requirements
3. Forming and meeting regularly with an advisory committee
4. Writing and defending research proposal
5. Writing and defending research thesis (including a publishable paper)

Coursework-based MS degree program requires

1. Approved petition to transfer into coursework-based program
2. Completing a minimum of 32 credits
3. Meeting minimum academic residency requirements
4. Writing and defending publication-quality review paper (before advisory committee)

Required Courses:

- BIOL 6705 - Biological Research Workshop (4 credits total-take in 2 different years)
- BIOL 6655 - Seminar (2 credits total-take in 2 different years)
- BIOL 6764 - Biological Data Analysis (4 credits total-take in year 1)
- BIOL 6002 - Biology Skills Sets - Pedagogy (required only for students supported by a Graduate Teaching Assistantship)

Additional minimum requirements for research-based MS program

- BIOL 6950 - Master's Thesis (1-2 credits in first spring/summer to write proposal and 2-4 credits in final semester to write thesis)

Additional minimum requirements for the coursework-based MS program

- BIOL 5840 - Independent Study: BIOL (3 credits: advisor-guided review paper)

Business Administration -- Health Administration MBA

Program Director: Errol L. Biggs

Telephone: 303-315-8851

E-mail: errol.biggs@ucdenver.edu

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. 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 48 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 - Leading Individuals and Teams
- BUSN 6530 - Data Analysis for Managers
- BUSN 6541 - Legal and Ethical Environment of Business (Health Section)
- BUSN 6550 - Analyzing and Interpreting Accounting Information
- BUSN 6561 - Marketing Management (Health Section)
- BUSN 6621 - Applied Economics for Managers (Health Section)
- BUSN 6630 - Management of Operations
- BUSN 6640 - Financial Management
- BUSN 6711 - Strategic Management (Health Section) *This course is intended to be taken in your last Spring semester.

Health Administration Core: (12 hours)

- HLTH 6010 - Health Care Systems
- HLTH 6070 - International Health Policy and Management
- HLTH 6770 - Healthcare Quality and Outcomes
- HLTH 6911 - Health Field Studies *This course is intended to be taken in your last Spring semester. Prereq: HLTH 6010 or consent of instructor, minimum 3.0 cumulative GPA.

Health Administration Information Technology Elective: (3 hours)

Select 1 of the following courses:

- HLTH 6071 - Introduction To Health Information Technology
- HLTH 6072 - Management of Healthcare Information Technology

The 2nd Health Administration Information Technology Elective may be used as Health Administration Elective.

Health Administration Electives: (6 hours)

Select 2 of the following courses:

- ENTP 6801 - Building Biotechnology
- ENTP 6848 - Leadership in New Ventures
- HLTH 6075 - International Health Travel Study
- HLTH 6740 - Profiles in Health Care

*HLTH 6071 or HLTH 6072 can be selected if not used as Health Administration Information Technology Elective.

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

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. Information on the full range of local, regional, and national residencies is available from the program director.

Length of program. A maximum of five years and one semester is allowed to complete the Health Administration program.

Business Administration MBA

Program Director: Dawn Gregg

Telephone: 303-315-8000

E-mail: Dawn.Gregg@ucdenver.edu

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. Students may combine on campus courses at our Denver campus or take courses at our South Denver location in Parker, Colorado. For students planning to combine courses at both locations, it is important to work with the advising team for planning purposes. 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 MBA (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: (30 hours)

- BUSN 6520 - Leading 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 Dynamics in the 21st Century
- 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

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: (3 hours)

Any course numbered 6000 or higher with INTB prefix or any graduate level business course that is cross-listed with an INTB prefix. May also include the following: MTAX 6430 International Taxation, ENTP 6826 International Entrepreneurship, ENTP 6827 Global Action Projects for International Entrepreneurship, or RISK 6800 Cyber Risk Management and Cyber Warfare. Travel studies offered by Business School will also apply.

Free Electives: (15 hours)

Any course numbered 6800 or higher with BUSN prefix or any course numbered 6000 or higher with prefix of ACCT, BANA, CMDT, ENTP, FNCE, INTB, ISMG, MGMT, MKTG, MTAX, or RISK. Students may also select a MBA Specialization.

Total: 48 Hours

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 15 specializations are available:

Accounting
Bioinnovation and Entrepreneurship
Business Analytics
Business Intelligence
Business Strategy

Change Management
Commodities
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
Taxation

Accounting

Acquire specialized knowledge of United States Generally Accepted Accounting Principles (GAAP) and financial reporting standards for publicly traded companies. Analyze the information in corporate annual reports, SEC filings, etc., to gain a better understanding of financial performance and trends.

This specialization includes in-depth knowledge of management accounting techniques for budgeting and management of both service and product oriented businesses. Acquire knowledge of tax compliance requirements and tax planning strategies for normal business operations and for the life-cycle of business start-up, expansion, and reorganizations.

Students should complete required courses and elective courses from the lists below for a total of 4 courses. Your selection of courses is based upon any waivers that have been approved by an advisor. Please contact an advisor for course waiver options.

Required courses:

- ACCT 6030 - Financial Accounting
- ACCT 6070 - Management Accounting
- ACCT 6140 - Tax Planning for Managers

Select one more ACCT 6000 level course or higher as an elective, excluding ACCT 6030, 6070, and 6140.

It is not recommended to repeat any accounting coursework taken in undergraduate studies. Please see an advisor to assess undergraduate transcripts for repeat coursework. Students sitting for the CPA exam should be aware that the CPA will not allow repeat coursework for credit.

Bioinnovation and Entrepreneurship

The Jake Jabs Center for Entrepreneurship is pleased to offer a in Bioinnovation and Entrepreneurship specialization, the first of its kind to be offered by an AACSB accredited graduate business school in the country. Taking advantage of the incredible Colorado biocluster, in collaboration with faculty at Anschutz Medical Campus, this specialization is one-of-a-kind, and is geared to helping bioentrepreneurs achieve commercial success. Additionally, you have opportunities to participate in a number of Jake Jabs Center programs; including the annual

business plan competition, internships in area businesses, speaker programs with local entrepreneurs, and connection with new ventures.

Select 1 of the following courses:

- ENTP 6801 - Building Biotechnology
- ENTP 6802 - Regulatory Environment of Life Science Innovation

Select two ENTP courses numbered 6000 or higher, excluding ENTP 6801 or ENTP 6802.

Select 1 of the following courses:

- ENTP 6020 - Business Model Development & Planning
- ENTP 6021 - Corporate Entrepreneurship

Business Analytics

Business analytics merges data, technology, and mathematical models to produce the evidence-based information needed for today's business and government decision-makers.

This specialization in business analytics trains you to construct and interpret models of big data, forecasting, optimization, and simulation. Analytics touch every aspect of business, driving the way businesses understand not only their own processes, but also the way their customers behave.

Complete four courses for the specialization. Select those four courses from any BANA course 6000 level or higher, excluding BANA 6610 and/or the following course as part of the four.

- MKTG 6050 - Market Research Analytics I

Business Intelligence

Modern business runs on information. Success may depend on the quality of the collection and analysis. Business Intelligence (BI) systems combine operational data with analytical tools to present complex and competitive information to planners and decision makers. This improves the timeliness and quality of inputs to the decision process.

Select 4 of the following courses:

- ISMG 6080 - Database Management Systems
- ISMG 6220 - Business Intelligence Systems and Analytics
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6470 - Text Data Analytics and Predictive Modeling
- ISMG 6480 - Data Warehouse and Administration
- ISMG 6810 - Business Intelligence in Healthcare
- ISMG 6820 - Business Intelligence and Financial Modeling

Business Strategy

Business Strategy examines the development of firm strategic plans and implementation including careful resource allocation and leadership skills essential for organizations to effectively meet their objectives. With this specialization, you get the necessary skills and knowledge used to develop and implement business strategy.

Select 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 6500 - International Business Consulting
- MGMT 6320 - Leading Organizational Change
- MGMT 6360 - Designing Effective Organizations
- MGMT 6610 - Business Strategy Lab
- MGMT 6730 - Human Resources Management: Performance Management
- MGMT 6803 - Visionary Leadership
- MKTG 6010 - Marketing Strategy

May select up to 2 of the following FNCE or RISK 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
- RISK 6909 - Corporate Risk Management

Change Management

Change is inevitable. Even when it is advantageous it can be difficult for organizations and people. Add the Change Management specialization to your degree and gain the necessary tools to help an organization understand the stages and benefits of change.

Required courses:

- MGMT 6320 - Leading Organizational Change
- MGMT 6360 - Designing Effective Organizations

Select 2 of the following courses:

- MGMT 6380 - Managing People for Competitive Advantage
- MGMT 6730 - Human Resources Management: Performance Management
- MGMT 6803 - Visionary Leadership
- MGMT 6804 - Bargaining and Negotiation
- MGMT 6808 - Leadership Development

Commodities

The specialization is a new offering from the J.P. Morgan Center for Commodities. MBA candidates and business professionals should take this specialization for a better understanding of the commodities market in its entirety, from both the physical and financial perspective, including trading operations, investment management, commodities and investment banking. With strong industry support, courses in this specialization are catered to and designed around actual business problems in the commodities sector. Students will have an edge in competing for jobs in the commodity rich sectors of this state.

Complete the following 4 courses:

- CMDT 6582 - Commodity Supply Chain Management
- CMDT 6682 - Trading in Commodity and Financial Markets
- CMDT 6802 - Foundations of Commodities
- FNCE 6382 - Survey of Financial Derivatives

Enterprise Technology Management

Gain a better understanding of business driven technology management. Add the Enterprise Technology Management specialization to your degree and focus on Information Technology as a prime driver and enabler of business strategy. To specialize in ETM you do not have to have a background in business programming however you should take Information Systems Management (BUSN6610) from the core MBA prior to taking the courses in this specialization.

Select 4 of the following courses:

- ISMG 6040 - Business Process Management
- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6450 - IT Project Management
- ISMG 6460 - Emerging Technologies
- ISMG 6830 - IT Governance and Service Management

Entrepreneurship

The Entrepreneurship specialization provides a range of focused courses geared towards individuals looking to start their own business. Courses are taught at the Jake Jabs Center for Entrepreneurship located in the heart of downtown Denver or at the new South Denver location at I25 and Lincoln. Complete four entrepreneurship courses to receive a specialization in Entrepreneurship. Additionally, you have opportunities to participate in a number of Jake Jabs Center programs; including the annual business plan competition, internships in area businesses, speaker programs with local entrepreneurs, and connection with new ventures.

Complete four courses total.

Complete 3 courses with an ENTP 6000 or higher number, excluding ENTP 6801 and ENTP 6802.

Then select one of the following capstone courses:

- ENTP 6020 - Business Model Development & Planning
- ENTP 6021 - Corporate Entrepreneurship

Finance

Adding the finance specialization to your degree gives you skills in different financial functional areas including corporate, investments, and financial institutions. You get the tools and skill sets you need for finance decision making and investment.

Required course:

- FNCE 6330 - Investment Management Analysis

Select 3 FNCE or CMDT or RISK 600 level or higher courses.

Human Resources Management

A company is a group of people working toward a common goal. Add the Human Resources Management specialization to your degree, and get advanced knowledge and tools and techniques you can use in recruiting, hiring, developing, motivating and rewarding managerial and non-managerial employees. Also learn about technology solutions such as designing and delivering online training and performance management programs.

Complete the following required course:

- MGMT 6380 - Managing People for Competitive Advantage

Select 3 of the following courses:

- 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 6760 - Employee Benefits and Workforce Risk Management

Or the following RISK course:

- RISK 6409 - Employee Benefits and Workforce Risk Management
- MGMT 6808 - Leadership Development

Information Systems

You want to be sure you are learning skills relevant to business now. Information systems have become ubiquitous. Managers now understand the need for IS and the benefits that provide an edge on the competition. Information systems impact accounting, financing, marketing, management; in fact every area of business has been changed by technology.

Select 4 of the following courses:

- ISMG 6040 - Business Process Management
- ISMG 6060 - Analysis, Modeling and Design
- ISMG 6080 - Database Management Systems

- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6450 - IT Project Management

International Business

International Business is quickly becoming simply business. Adding a specialization in International Business to your degree will help you to work internationally, and with international companies. From cross cultural management to legal aspects to marketing internationally. Prepare yourself for how business works today.

Required course:

- INTB 6000 - Introduction to International Business

OR

- ENTP 6826 - International Entrepreneurship

Complete 3 of the following courses:

Any INTB 6*** course excluding INTB 6000 and INTB 6200. May include the following courses that are not INTB: ENTP 6827 (Global Action Projects for International Entrepreneurship); MGMT 6834 (London Calling: Global Sports and Entertainment-Travel Study); MTAX 6430 (International Taxation); RISK 6800 (Special Topics in Risk Management and Insurance).

Leadership

Become a more effective leader with this specialization as you concentrate on developing key leadership skills and learn about areas where leadership matters most.

Complete a total of 4 courses for the specialization.

Required courses.

Complete 2 or 3 of the following courses:

- MGMT 6803 - Visionary Leadership
- MGMT 6804 - Bargaining and Negotiation
- MGMT 6808 - Leadership Development

Then complete 1 or 2 of the following courses:

- BANA 6650 - Project Management
- ENTP 6848 - Leadership in New Ventures
- INTB 6000 - Introduction to International Business
- 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 (**prereq: one sustainable business elective**)

Managing for Sustainability

More than ever before, major companies and entrepreneurial ventures are seeking competitive advantage and success by embracing sustainability — social and environmental responsibility — as a core business strategy.

Farsighted leaders recognize that this new way of doing business requires skills in sustainable management including social entrepreneurialism, eco-efficiency, inter-disciplinary problem solving and a triple bottom line approach of economics, environment and society. Make your degree a green MBA by adding the Managing for Sustainability specialization and learn what businesses are facing in a world where resources are scarce, social safety nets are declining, and customers and commentators are concerned about a company's investment in corporate responsibility.

Complete 4 of the following courses:

- ACCT 6285 - Accounting and Finance for Sustainability
- BANA 6730 - Supply Chain Management
- ENTP 6642 - Exploring Social Entrepreneurship
- ENTP 6644 - Social Entrepreneurship in the Developing World
- ENTP 6808 - Practicum in Sustainable Business Research
- INTB 6870 - Global Climate Change

OR

- BUSN 6870 - Global Climate Change
- 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
- MKTG 6830 - Marketing & Global Sustainability
- MGMT 6840 - Independent Study **(by petition only)**
- MGMT 5939 - Internship **(by petition only)**

OR

- MKTG 5939 - Internship **(by petition only)**

Students may take 1 sustainability course outside the Business School from another CU Denver school/college/department (by petition only).

Marketing

Marketing is about building long-term relationships between your firm and those who buy its offerings. Just how important is marketing to a firm's success? Well without it there would be no way to communicate with current or potential customers and no revenues. That's right, all of a firm's revenues flow through the marketing function and the way a firm communicates with its markets is through its offerings. Given its critical roles in the success of any firm you might want to develop a deeper understanding of the issues it addresses and a more complete toolkit for analyzing its impact. This is what an MBA degree with a Marketing specialization from the University of Colorado Denver is designed to do. Your MBA-based Marketing specialization will give you the skills and confidence needed to effectively manage a firm and in particular those aspects associated with building profitable, long-term, business relationships. Since Marketing is such a broad area that affects many aspects of business we provide you considerable flexibility to select courses that are appropriate for your chosen career. In fact, we recommend that before selecting your marketing electives you speak with one of our marketing professors for additional insights on which courses are better suited to your situation.

To complete the specialization select 4 MKTG 6000 level or higher courses.

Risk Management and Insurance

The specialization in Risk Management and Insurance is designed for students who are interested in pursuing or advancing a career in the insurance industry, or other areas of risk management.

Required courses:

- RISK 6809 - Principles of Risk Management & Insurance
- RISK 6909 - Corporate Risk Management
- RISK 6129 - Practical Enterprise Risk Management

Complete one of the following courses:

- CMDT 6682 - Trading in Commodity and Financial Markets
- FNCE 6330 - Investment Management Analysis
- FNCE 6350 - Financial Innovations
- FNCE 6360 - Management of Financial Institutions
- FNCE 6380 - Futures and Options
- FNCE 6382 - Survey of Financial Derivatives
- FNCE 6410 - Real Options and Decisions Under Uncertainty
- FNCE 6480 - Financial Modeling
- RISK 6309 - Strategic Risk Management

Complete one of the following courses:

- BUSN 6830 - Business and the Natural Environment
- INTB 6870 - Global Climate Change

OR

- BUSN 6870 - Global Climate Change
- BANA 6650 - Project Management
- CMDT 6582 - Commodity Supply Chain Management
- CMDT 6802 - Foundations of Commodities
- ENTP 6824 - Entrepreneurial Financial Management
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6450 - IT Project Management
- MGMT 6823 - The Sustainable Business Opportunity
- RISK 6409 - Employee Benefits and Workforce Risk Management
- RISK 6509 - Global Risk Management
- RISK 6800 - Special Topics: Cyber Risk Management & Cyber Warfare

Sports and Entertainment Management

The Sports industry is the sixth largest industry in the United States and the Sports and Entertainment industries are converging. To become a professional in these industries, you need special skills. Through this specialization, you gain the tools to get ahead in both the sports management and entertainment management industries.

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 5939 - Internship **(in Sports and Entertainment field; by petition only)**
- MGMT 6834 - London Calling: Global Sports and Entertainment Management **(Travel Study)**

- MKTG 6820 - Sports & Entertainment Marketing

Taxation

Gain an insight into one of the most important cost factors affecting entrepreneurs and businesses of all sizes - taxes.

Understand the fundamentals of federal income taxation and the role that taxes play in a business person's strategic investment and business decisions. Acquire knowledge of the various tax ramifications that influence way business ventures and enterprises are structured, organized, operated and eventually liquidated.

Students should complete required and elective courses from the lists below for a total of 4 courses. Your selection will be based upon any waivers that have been approved by an advisor.

Complete the following required courses:

- ACCT 6140 - Tax Planning for Managers
Please contact a graduate advisor for course waiver options for ACCT 6140.
- MTAX 6450 - Research Problems and Business Communications in Taxation
- MTAX 6400 - Taxation of C Corporations and Shareholders

Elective courses to select from:

- MTAX 6430 - International Taxation
- MTAX 6440 - Tax Practice and Procedures
- MTAX 6475 - Accounting for Income Taxes
- MTAX 6480 - Partnership Taxation

Business Administration: 11-Month MBA

Program Director: Gary Colbert

Operations Director: Debbie Capaldi 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. 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. The admissions committee requires a minimum of two years professional work experience to apply. 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.

- application fee (domestic or international as appropriate)
- online application for graduate admission
- 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 - Leading 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 Dynamics in the 21st Century
- 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.

Business Analytics MS

Program Director: Deborah Kellogg

Telephone: 303-315-8435

E-mail: Deborah.Kellogg@ucdenver.edu

The MS in Business Analytics focuses on modeling and applications which prepares you for a career as a business analyst 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. Business Analytics 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 Business Analytics 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, predictive analytics, and supply chain management. Students may elect to pursue a specialization in Big Data.

This degree is not designed to be completed in one year. Requirements for the MS degree in Business Analytics are met by the following courses and options:

Core Required Courses: (21 hours)

- BUSN 6630 - Management of Operations
- BANA 6610 - Statistics for Business Analytics
- BANA 6620 - Computing for Business Analytics
- BANA 6630 - Time-Series Forecasting
- BANA 6640 - Decision Analysis
- BANA 6650 - Project Management
- BANA 6660 - Predictive Analytics

Electives: (9 hours)

Select any three courses which must include BANA courses numbered 6000 or higher or MKTG 6050 Marketing Research.

Students may customize the degree by selecting BANA electives meeting the above description OR students may utilize BANA electives to complete the Big Data Specialization (BDA) outlined below:

Big Data Specialization

The following BANA core required courses must be completed for this specialization:

- BANA 6620 - Computing for Business Analytics
- BANA 6660 - Predictive Analytics

Select one of the following courses:

- BANA 6800 - Special Topics
Special topics course will only count as part of this specialization if the special topic includes Big Data.
- BANA 6910 - Business Analytics Practicum
BANA 6910 will only count as part of this specialization if the topic includes Big Data.

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 Business Analytics (BANA) 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 Business Analytics. The evaluation of substitute courses will include syllabi evaluation and the accreditation of the transferring institution.

Total: 30 Hours

Chemistry MS

- Graduate School Rules apply to this program

Program Director: Scott Reed

Email: Scott.Reed@ucdenver.edu

Office: SI 4131

Phone: 303-556-6260

The MS program in chemistry focuses on providing students the skills and knowledge necessary to conduct specialized research in preparation for careers in chemistry and related disciplines. Completing an MS in Chemistry at CU Denver can provide valuable experience that can help students land a job in the pharmaceutical, biotechnological, or other industry or can serve as a stepping stone for admission to a competitive PhD or health sciences program. Our faculty serve as mentors and advisors and assist students on the path to a more satisfying

career in science. Prospective students are encouraged to contact the Graduate Program Director visit the Department of Chemistry website for additional details concerning the chemistry program, admission procedures, financial assistance and faculty research interests.

Admission Requirements:

Applicants must meet the Downtown Campus Graduate School admission requirements according to Graduate School Policies and Procedures in addition to the following requirements of the Department of Chemistry:

An undergraduate major in Chemistry or a closely related discipline is required, including two semesters of organic chemistry as well as training in analytical chemistry, physical chemistry, and inorganic chemistry. Students missing more than one of these courses may be limited in the tracks that they are eligible to select. Students missing more than one of these courses may be provided a provisional admission. An undergraduate GPA of 3.0 (on a 4 point scale) is desired although each application is considered on its own merits.

- The GRE examination is recommended but not required.
- International students have additional admission requirements concerning immigration status, proof of financial responsibility and acceptable TOEFL or IELTS scores or completion of the CU Denver English as a Second Language Academy.
- Students currently in a BS program at CU Denver or elsewhere may want to consider the Chemistry BS/MS . This option includes the opportunity to enroll in graduate classes before enrolling at CU Denver. At least 20 credits must be earned on campus. However, for the remaining courses enrollment through CU ONLINE or on one of the other CU campuses is possible. Furthermore, the Chemistry Master's Program accepts transfer credits from accredited Universities with approval from the Graduate Program Director.

In addition to selecting Plan I or Plan II, all MS students must select a track for their degree

- Students interested in specializing within Chemistry must select from one of the tracks listed below. Each track has separate placement examinations. Therefore switching between tracks requires approval from the graduate program director

Study Plans:

Plan I: Plan I (Thesis) is a research oriented program involving a minimum of 30 semester hours with the following requirements:	Plan II: Plan II (Course Work) is a coursework oriented program involving a minimum of 30 semester hours with the following requirements:
Students interested in specializing within Chemistry must select from one of the tracks listed below. Each track has separate placement examinations. Therefore switching between tracks requires approval from the Graduate Program Director	
Tracks: Track 1: Biochemistry Track 2: Synthesis and Measurement	

Track 3: Molecular Modeling

Track 4: Traditional Chemistry

Completing an MS in Chemistry - Graduation Requirements

All Chemistry MS students must meet the following requirements for graduation:

- A cumulative GPA of 3.0 or better at the time of graduation
- A grade of B (2.7) or better in all courses to be counted toward the degree.
- Compliance with all Graduate School Policies and Procedures
- Every student must select to a thesis or non-thesis plan. As most of the requirements overlap, a student may switch between these plans with permission from the Graduate Program Director.
- Although degrees can be completed in as little as one year, all work must be completed within five years after enrolling in the first graduate class in the department.
- Students are eligible to apply for a research assistantship or a teaching assistantship positions. Students who are interested in improving teaching skills can enroll in CHEM 5655 Teaching Assistant Bootcamp. This course is required for all students who are interested in working as a teaching assistant in the department.
- A minimum of 20 semester hours must be earned in formal lecture courses in the Department of Chemistry. Other credits can be acquired through research, internships, thesis work, independent study, transfer credits, etc.

Plan I (Thesis) is a research oriented program involving a minimum of 30 semester hours with the following requirements:

- An acceptable formal thesis consistent with the Graduate School Policies and Procedures
- Successful oral defense of the master's thesis before a committee of at least three Regular Graduate Faculty, two of whom must be tenure track faculty members and have an appointment with the Graduate School through the Department of Chemistry.
- Completion of a high quality research project suitable for publication in a peer-reviewed journal.
- 3 semester hours of CHEM 6950 - Master's Thesis
- All thesis students must complete 1 credit of CHEM 5610 - Understanding & Presenting Chemical Research no later than the semester before they defend their thesis.

Plan II (Course Work) is a coursework oriented program involving a minimum of 30 semester hours with the following requirements:

- All Plan II students are required to take a final written examination about primary research articles in their discipline. This exam may be taken any semester after 20 semester hours of graduate course work have been completed. Students may attempt the exam once per semester a maximum of three times and must be registered during the semester that they attempt the final examination.
- All non-thesis students are encouraged to take 1 credit of CHEM 5610 - Understanding & Presenting Chemical Research
- Plan II students may arrange for an internship at a local company that employs Chemists and take up to 6 credits of CHEM 5939 - Internship Students must be in good academic standing and have completed 6

graduate semester hours at CU Denver before starting an internship. Approval of the graduate program director is required prior to selecting an internship and enrolling for credit.

Track Options:

Track 1: Biochemistry

Understanding of biochemical principles governing metabolic diseases, cancer and neurodegenerative diseases.

Take the following required course:

- CHEM 5810 - Graduate Biochemistry I

Take **one** of the following required courses:

- CHEM 5310 - Advanced Organic Chemistry
- CHEM 5530 - Advanced Physical Chemistry

Take **two** of the following elective courses:

- CHEM 5815 - Structural Biology of Neurodegenerative Diseases
- CHEM 5825 - Biochemistry of Metabolic Disease
- CHEM 5830 - Graduate Biochemistry II
- CHEM 5835 - Biochemistry of Gene Regulation and Cancer
- CHEM 5600 - Graduate Topics in Chemistry (course topic must match to the topic area of the track and be preapproved by the Graduate Program Director)

CHEM 5310 or CHEM 5530 may be taken, if not used as a required course above. Additional courses within the department (a minimum of 20 semester hours must be in Chemistry) and in other departments can be used to complete the total of 30 credits required for the degree. Course selections outside of the department must be approved by the Graduate Program Director.

Track 2: Synthesis and Measurement

Students in this track will learn how to prepare and characterize molecules and materials and how to measure their properties.

Take **one** of the following required courses:

- CHEM 5010 - Advanced Inorganic Chemistry
- CHEM 5310 - Advanced Organic Chemistry

Take **one** of the following required courses:

- CHEM 5110 - Advanced Analytical Chemistry
- CHEM 5221 Practical Applications for Spectroscopy

Take **two** of the following elective courses:

- CHEM 5510 - Computational Chemistry
- CHEM 5530 - Advanced Physical Chemistry

- CHEM 5600 - Graduate Topics in Chemistry (course topic must match to the topic area of the track and be preapproved by the Graduate Program Director)
- CHEM 5810 - Graduate Biochemistry I
- CHEM 5815 - Structural Biology of Neurodegenerative Diseases
- BIOE 5420 - Special Topics in Bioengineering (course topic must be preapproved by the Graduate Director)

CHEM 5010, CHEM 5110, CHEM 5221 or CHEM 5310 may be taken if not used as a required course above. Additional courses within the department (a minimum of 20 semester hours must be in Chemistry) and in other departments can be used to complete the total of 30 credits required for the degree. Course selections outside of the department must be approved by the Graduate Program Director.

Track 3: Molecular Modeling

Students in this track will learn fundamental principles and modern techniques in computer modeling and apply the acquired knowledge to solve practical problems in chemistry, biochemistry, biophysics, and material sciences.

Take all of the following required courses:

- CHEM 5510 - Computational Chemistry
- CHEM 5530 - Advanced Physical Chemistry

Take **two** of the following electives:

- CHEM 5010 - Advanced Inorganic Chemistry
- CHEM 5310 - Advanced Organic Chemistry
- CHEM 5600 - Graduate Topics in Chemistry (course topic must match to the topic area of the track and be preapproved by the Graduate Program Director)
- CHEM 5815 - Structural Biology of Neurodegenerative Diseases
- CHEM 5810 - Graduate Biochemistry I

Additionally, students are recommended to take one or two courses from other departments:

- MATH 3191 - Applied Linear Algebra
- MATH 4387 - Applied Regression Analysis
- MATH 5310 - Probability
- MATH 5387 - Applied Regression Analysis
- MATH 5660 - Numerical Analysis I
- CSCI 1410 - Fundamentals of Computing
- CSCI 2312 - Object Oriented Programming
- CSCI 4650 - Numerical Analysis I
- CSCI 5660 - Numerical Analysis I

Additional courses within the department (a minimum of 20 semester hours must be in Chemistry) and in other departments can be used to complete the total of 30 credits required for the degree. Course selections outside of the department and not on the above elective list must be approved by the Graduate Program Director.

Track 4: Traditional Chemistry

Students that are interested in gaining experience in a broad range of chemistry including the critical sub-disciplines of organic, inorganic, analytical, and physical chemistry are encouraged to consider the traditional track.

Traditional Chemistry MS degree students must complete **three out of four of the following required courses and a thesis or all four required courses and a final written examination.**

- CHEM 5010 - Advanced Inorganic Chemistry
- CHEM 5110 - Advanced Analytical Chemistry
- CHEM 5310 - Advanced Organic Chemistry
- CHEM 5530 - Advanced Physical Chemistry

Additional courses within the department (a minimum of 20 credit hours must be in Chemistry) and in other departments can be used to complete the total of 30 credits required for the degree. Course selections outside of the department must be approved by the Graduate Program Director.

Civil Engineering MS and MEng

- Graduate School Policies and Procedures 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)

- Construction Engineering and Management
- Geomatics Engineering and 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 Scores:

Applicants must submit evidence of adequate preparation for graduate study by either (a) submitting official GRE scores, or (b) documenting an earned bachelor's degree with a GPA of 3.00 or higher from an institution accredited by a U.S. accreditation body, or an earned master's degree with a GPA of 3.50 or higher from an institution accredited by a U.S. accreditation body.

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 must receive a grade of C-minus or better for the prerequisite class to apply to the 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.

If prerequisites are taken while admitted to the master's program, students must maintain a 3.0 overall GPA, per Graduate School rules.

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. Learn more in the International Students section of the catalog.

Communication MA

► Graduate School Policies and Procedures apply to this program

Our vibrant community of scholars and teachers is committed to providing a real world, hands-on, and theoretically robust master's degree that will enrich your communication knowledge and skills for the twenty-first century. Our program is a 33-credit generalist degree designed to enhance students' intellectual and professional growth through the understanding and practice of effective communication. Our faculty members are nationally and internationally recognized leaders in their field, and our students hail from all over the world.

Students who complete our program often receive offers to top-notch PhD programs or accept or continue in positions related to communication management, strategic communication, public relations, media relations, human relations, and corporate and non-profit communications.

Degree Requirements

The MA degree in communication requires the completion of 33 hours of graduate course work (5000 level or above). As explained below, students have the option of taking 6 hours of 4000-level courses outside of Communication. 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 Introduction 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 Course

Most methods courses are offered every other year. Students who wish to pursue a PhD may elect to take additional methods classes in or outside the department.

Choose one:

- COMM 5022 - Critical Analysis of Communication
- COMM 5205 - Empirical Research Methods for Communication
- COMM 5221 - Research Methods: Qualitative
- COMM 5700 - Writing Practicum
- COMM 5710 - Topics in Communication

The topics courses that may be used toward the methods requirement are Media Criticism and Film Criticism.

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. Seminars are often topics classes taught in faculty areas of expertise.

- COMM 5240 - Organizational Communication
- COMM 5250 - Difference Matters and Organizational Communication
- COMM 5265 - Gender and Communication
- COMM 5600 - Media Theory
- COMM 5710 - Topics in Communication
Topics include but are not limited to: Media Criticism, Film Criticism, Critical Theory, Communication, Globalization, Social Justice, Communication, Democracy, Civil Engagement, Digital Health Narratives, Organizational Discourse, and Communication and Security.
- COMM 5760 - New Media

*Graduate Seminars are courses that have a minimum enrollment of 15 or fewer graduate students.

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, provided the 4000 level classes are outside the department. 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.

- COMM 5040 - Communication, Prisons, and Social Justice
- COMM 5255 - Negotiations and Bargaining
- COMM 5265 - Gender and Communication
- COMM 5270 - Intercultural Communication
- COMM 5282 - Environmental Communication
- COMM 5710 - Topics in Communication

Topics include but are not limited to: Media Criticism, Film Criticism, Critical Theory, Communication, Globalization, Social Justice, Communication, Democracy, Civil Engagement, Digital Health Narratives, Organizational Discourse and Communication and Security.

- COMM 5500 - Health Communication
- COMM 5550 - Rhetorics of Medicine & Health
- COMM 5620 - Health Risk Communication
- COMM 5621 - Visual Communication
- COMM 5051 - Advanced Strategic Communication
- COMM 5665 - Principles of Advertising
- COMM 5840 - Independent Study
- COMM 5939 - Internship
- COMM 5995 - Travel Study
- COMM 6950 - Master's Thesis

You need 3-6 thesis credits if you elect the thesis option.

Total: 12 Hours

Thesis

Students wishing to complete a thesis must register for between 3-6 semester hours of thesis work, and will need 33 credits to graduate. Credit for a thesis may substitute for one or two elective course requirements.

Total: 3-6 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.

Students must comply with all rules of the CU Denver Graduate School.

Degree Total: 33 Hours

Computer Science MS

► Graduate School Policies and Procedures apply to this program

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 must take 30 hours of graduate course work and, additionally, complete the final assessment during the student's graduating semester. In this plan, students will take four "category A" courses and a minimum of four "category B" courses.

Students are allowed a maximum of 3 credit hours of CS Independent Study (except in Plan III, 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 online 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 at engineering.ucdenver.edu/cse > Degree Programs.

Counseling MA

Return to: School of Education & Human Development

- Degree
- Admission Requirements
- Program Requirements

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.

Degree

The Master of Arts degree in Counseling program prepares professionals for community/mental health agencies, private practice, public schools, and institutions of higher education. Students should obtain faculty advising regarding professional requirements. Students accepted into the Counseling program follow one of the five concentration areas. The clinical mental health and clinical mental health-multicultural counseling tracks follow state licensure requirements for licensed professional counselor; the couple and family therapy track follows licensure requirements designated by the state of Colorado of licensure as a marriage and family therapist and state licensure requirements for licensed professional counselor; the school track follows both the licensed professional counselor licensure and Colorado Department of Education license as a school counselor requirements; and the higher education and student affairs track follows the Counsel for the Advancement of Standards in Higher Education standards but does not lead to any counseling license.

The clinical mental health, couple and family therapy, and school counselor tracks consist of 63 semester hours. The clinical mental health-multicultural track consists of 66 semester hours. Core requirements that are common to all areas of study are followed by courses specific to each program. The clinical mental health and clinical mental health-multicultural, couple and family therapy, and school counselor tracks require a practicum (150 clock hours) and an internship (600 clock hours). For students in these tracks, the master's degree is a three-year program with course work for two years followed by a year of practicum and internship.

The higher education and student affairs track consists of 39 semester hours. Students in this track are required to complete a 600 hour internship.

The clinical mental health and clinical mental health-multicultural, couple and family therapy, and school counselor tracks are nationally accredited by CACREP, the Council for the Accreditation of Counseling and Related Educational Programs.

Admission Requirements

Successful applicants to the Counseling program will have obtained a minimum 2.75 undergraduate GPA. Also, applicants will submit a current resume, a letter of intent, three letters of recommendation and additional required materials. Applicants meeting these minimum standards may 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 or graduate level) is required prior to enrollment in the program or may be completed during the first semester in the program.

Application materials are available here. All materials must be submitted online by the appropriate deadline: September 15 for spring semester and January 15 for fall semester.

Program Requirements

Counseling students must earn at least a B in skills-oriented courses (COUN 5100, 5160, 6140, 7100, 5910, 5930) or must repeat these courses until they do so. Students in clinical mental health and clinical mental health-multicultural, couple and family therapy, and school counselor tracks must also take a national comprehensive examination (after all core courses). Students in the higher education and student affairs track must complete a comprehensive examination in the last semester of study. Students may choose to conduct research and submit a thesis (research conducted under faculty advisement) instead of taking a comprehensive examination.

Counseling Core

COUN 5010 - Counseling Theories
COUN 5100 - Techniques of Counseling
COUN 5110 - Group Counseling*
COUN 5150 - Family Counseling/Therapy*
COUN 5330 - Counseling Issues and Ethics*
COUN 5400 - Career Development
COUN 5810 - Multicultural Counseling Issues for Individuals and Families
EDHD 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 all Counseling core classes are completed.

*not required for students in the higher education and student affairs track

Total: 30 Hours

Additional Requirements for Clinical Mental Health Counseling (MA)

COUN 5160 - Techniques in Family Therapy
COUN 5280 - Addictions Counseling
COUN 5820 - Strategies of Agency Counseling
COUN 6250 - Mental Health Diagnosis
COUN 7100 - Advanced Theories and Techniques in Psychotherapy
Two Additional Electives (6 semester hours)
COUN 5910 - Practicum in COUN
COUN 5930 - Internship in Counseling

Total: 33 Hours

Additional Requirements for Clinical Mental Health Counseling-Multicultural

COUN 5160 - Techniques in Family Therapy
COUN 5280 - Addictions Counseling
COUN 5820 - Strategies of Agency Counseling

COUN 5830 - Special Topics Gender & Sexual Orientation
COUN 6100 - Spiritual Dimensions of Counseling
COUN 6250 - Mental Health Diagnosis
COUN 6810 - Advanced Multicultural Counseling
COUN 7100 - Advanced Theories and Techniques in Psychotherapy
COUN 5910 - Practicum in COUN
COUN 5930 - Internship in Counseling

Total: 36 Hours

Additional Requirements for School Counselor License (MA)*

COUN 5280 - Addictions Counseling
COUN 5425 - Developing & Implementing a School Counseling Program: ASCA
COUN 5815 - Introduction to School Counseling
COUN 5915 - Practicum in School Counseling
COUN 6140 - Counseling Children, Adolescents and Their Parents
COUN 6230 - Developmental Counseling in Schools: Prevention & Intervention
COUN 6250 - Mental Health Diagnosis
COUN 5910 - Practicum in COUN
COUN 5930 - Internship in Counseling

The Professional School Counselor Praxis exam (5421) is required for the Colorado Department of Education license for school counselors.

Total: 33 Hours

*100 hour practicum is required in the schools (COUN 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. COUN 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 Couple and Family Therapy (MA)

COUN 5160 - Techniques in Family Therapy
COUN 5170 - Issues In Family Studies
COUN 5180 - Counseling Couples
COUN 6000 - Introduction to Sex Therapy
COUN 6140 - Counseling Children, Adolescents and Their Parents
COUN 6160 - Advanced Assessment: Theory and Treatment in Family Systems
COUN 6250 - Mental Health Diagnosis
COUN 5910 - Practicum in COUN
COUN 5930 - Internship in Counseling

Total: 33 Hours

Additional Requirements for Higher Education and Student Affairs*

COUN 5050 - Foundations of Student Affairs
COUN 5500 - Diversity in Higher Education
COUN 5130 - Student Development Theory
HDFR 5003 - Leadership and Organizations
COUN 5070 - Higher Education Law and Ethics
COUN 5940 - Internship in Higher Education and Student Affairs
Comprehensive Exam

Total: 21 Hours

*Students who have completed higher education and student affairs courses as part of the Human Development and Family Relations undergraduate major or minor at CU Denver, will be allowed to use these courses to satisfy program requirements; but, they will not receive graduate credit for these courses. As such, these students will be required to take elective courses to reach the 39 credit hour requirement.

Criminal Justice MCJ

Introduction

► Graduate School Policies and Procedures apply to this program

Program Director: Lorine Hughes, PhD

The Master of Criminal Justice (MCJ) program is designed for students interested in comprehensive professional graduate education in criminology and criminal justice. It is intended to provide in-depth understanding of existing structures, practices, and challenges within this field of study.

Part of an academic and professional field of study, the MCJ program prepares students to administer, analyze, evaluate, and facilitate improvements in the rationality and responsiveness of the criminal and juvenile justice systems. Research design capability is emphasized alongside skills required for analyzing empirical data and innovating in crime control and prevention. Students who advance through the program acquire strategies and skills necessary for promoting individual, organizational, and social change.

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
Callie Marie Rennison, PhD, University of Houston

Associate Professors:

Lorine Hughes, PhD, Washington State University
Lonnie Schaible, PhD, Washington State University

Senior Instructors:

Lucy Dwight, PhD, Pennsylvania State University
Sheila Huss, PhD, University of Colorado Denver

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 subscores of 20 or greater, 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.*

Preferred Application Deadline

Fall - March 1
Spring - October 15
Summer - March 1

*Final Deadline**

Fall - August 1
Spring - December 1
Summer - 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.

MCJ students may select two of the following for their first semester:

- CRJU 5001
- CRJU 5003
- 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. Taking courses as a nondegree student does not guarantee later admittance into the MCJ program. 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 MCJ student is 6 to 9 graduate credit hours per semester; full-time status for MCJ graduate students is 5 graduate credit hours per semester for financial aid determination. A student who is employed full-time is strongly advised not to carry more than 6 graduate semester hours in the MCJ program. Students who wish to carry a graduate course load above 9 hours per semester must consult their advisor and/or student service coordinator first.

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 1 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 the equivalent of at least one year of professional full-time experience in the field, following the awarding of their Bachelor degree. The purpose of the internship is to continue the linkage between theory and practice that is the philosophical basis of SPA. Internships generally involve substantive part-time work undertaken during the course of one semester. A maximum of three semester hours will be awarded for internship service. 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 seven years of registration in their first course.

MCJ Degree Requirements

The minimum requirements for the basic MCJ degree are outlined below. Occasionally, changes are made; students may graduate under the requirements that were in effect at the time of admission.

1. Graduate Course Work

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 B- 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

3. Course Work

Students must complete a minimum of 27 semester hours of course work in criminal justice.

4. Criminal Justice Internship

Students who have not had one year of criminal justice experience following the awarding of their Bachelor degree are required to complete CRJU 6910 (field study). A minimum of 240 hours of supervised work is required to earn 3 hours of credit. Students must have completed 18 credit hours with a GPA of 3.0 prior to enrolling in the internship course.

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. The capstone cannot be taken during the summer semester.

- 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.

*Students admitted before spring 2009 may opt to take a written comprehensive exam in lieu of CRJU 5361.

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 5270 - Case Studies in Crim Justice
- CRJU 5280 - Computer Crime
- CRJU 5301 - Crime and Media
- CRJU 5320 - Police Administration
- CRJU 5325 - Qualitative Methods for Criminal Justice
- CRJU 5330 - Gangs and Criminal Organizations
- CRJU 5331 - Crime Analysis and GIS
- CRJU 5391 - Sex Offenders and Offenses
- CRJU 5410 - Victimology

- CRJU 5420 - Violence in Society
- 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 5550 - Criminal Justice Policy and Planning
- CRJU 5551 - Courts, Law & Justice
- CRJU 5552 - Criminal Justice Ethics
- CRJU 5553 - Women and Crime
- CRJU 5555 - Profiling Criminal Behavior
- CRJU 5571 - The Social Organization of Crime
- CRJU 5572 - Race, Crime and Justice
- CRJU 5574 - White Collar Crime
- CRJU 5575 - The Mentally Disordered Offender
- CRJU 5576 - Social Science in the Criminal Justice System
- CRJU 6600 - Special Topics in Criminal Justice

MCJ Options

Concentrations and Graduate Certificates

Crime Analyst Concentration

A student may choose to complete a concentration in crime analysis studies as part of the MCJ degree, or the crime analyst program can be completed by non-degree students as a stand-alone graduate certificate. The certificate emphasizes criminal justice and criminology related subjects. Nonetheless, the analytic skills learned in this concentration or certificate are not industry-specific and easily can be transferred to non-criminal justice and criminology related fields.

Students seeking a crime analyst concentration must complete 15 semester hours in the following required courses.

Requirements:

- CRJU 5003 - Criminal Justice Research Methods
- CRJU 5004 - Criminal Justice Statistics
- CRJU 5325 - Qualitative Research Methods
- CRJU 6600 - Intelligence Writing and Briefing
- CRJU 5331 - Law Enforcement Analysis

Total: 15 Hours

Gender-Based Violence Concentration/Graduate Certificate

A student may choose to complete a concentration in gender-based violence studies as part of the MCJ or MPA degree, or the gender-based violence program can be completed by non-degree students as a stand-alone graduate certificate. The gender-based violence program of study provides an interdisciplinary perspective on crime, the formulation of laws and codes, and the criminal legal system and its intersection with gender and violence. Students pursuing the gender-based violence concentration must complete a total of 15 semester hours via intensive in-person and online hybrid courses that meet periodically throughout a two-year period.

Requirements

Students take the four specified courses below and one elective.

- PUAD 5910 - Nature and Scope of Interpersonal Violence
- PUAD 5920 - The Psychology of Interpersonal Violence
- PUAD 5930 - Interpersonal Violence Law and Policy
- PUAD 5940 - Interpersonal Violence Leadership, Advocacy, and Social Change
-

Total: 15 Hours

Emergency Management and Homeland Security Concentration

The graduate concentration in Emergency Management and Homeland Security is available as a concentration within the MCJ program or as a stand-alone certificate for non-degree students. This concentration requires 15 credit hours (5 courses) and provides advanced education in the management of emergencies, hazards, disasters, and homeland security. Students completing this sequence will develop the knowledge and skills necessary to assess and manage a broad range of hazards and disasters and to understand the policy environment in which emergency management occurs.

Requirements

Students take two of the following three required courses as well as three elective courses approved by their advisor. The three elective courses may be drawn from the student's particular area of interest, such as policy and management, spatial analysis and quantitative assessment, or public safety.

- GEOG 5230 - Hazard Mitigation and Vulnerability Assessment
- PUAD 5650 - Public Policies for Homeland Security and Disasters

- PUAD 5450 - Law of All-Hazards Management

Online Option

The MCJ degree is offered in an online format. Students who are looking for a high-quality education but need an alternative to traditional classroom instruction may elect to complete one or all of their courses online. This option allows students to complete the entire degree at a distance or elect to take some courses in person while using an interactive online format for others.

Curriculum and Instruction MA

The Curriculum and Instruction (C&I) program offers a Personalized Professional MA degree, a MA degree plus endorsement, and endorsements in a variety of areas. The program is intended to provide licensed K-12 teachers the skills and understanding necessary for an ever-increasing diverse student body and to prepare them for curriculum development, implementation, and assessment. The program is also beneficial for those individuals who work in community colleges, professional development, or other ancillary services in education and beyond. This is not a licensure program. No teacher license will be issued upon successful completion of the program.

MA C&I Degree, MA C&I Degree + Endorsement, and Endorsement Areas

Personalized Professional C&I MA Degree with Concentration in: no license or endorsement)	C&I MA Degree + Endorsement	Endorsement Only
Culturally and Linguistically Diverse Education	C&I MA w/Culturally and Linguistically Diverse Education with K-12 endorsement	Culturally and Linguistically Diverse Education (K-12)
Reading and Writing	C&I MA w/Reading and Writing with Reading Teacher K-12 Endorsement	Reading Teacher (K-12)
English Education		
Math Education		
Science Education		
Math and Science Education		
Special Education	C&I MA w/Special Education with Generalist Endorsement, Ages 5-21	Special Education Generalist Endorsement, Ages 5-21

The Master of Arts (MA) in Curriculum and Instruction offers three degree paths:

1. **Personalized Professional:** The customizable 30 credit hour MA path provides the opportunity for you to tailor your coursework to your specific needs as an Educator. Students choose from one of several concentration areas in which to focus, while having the flexibility to choose courses outside the concentration area for additional learning from the Thematic Course Categories. This MA does NOT lead to a license or an endorsement.
2. **MA plus endorsement:** The MA plus endorsement allows students to add an endorsement to their current teaching license in a variety of areas. In this program, students receive a MA and an endorsement. Recommendation for endorsement(s) is made by the C&I Program, but endorsement is granted by the State of Colorado. Individual State requirements vary and may include teaching experience and examinations in addition to a valid teaching credential. Students should consult with the Colorado Department of Education for the most updated endorsement requirements. http://www.cde.state.co.us/cdeprof/licensure_authorization_landing.
3. **MA for teacher licensure completers:** Students who have completed the Teacher Education licensure program in the SEHD have the option of completing their MA in Curriculum and Instruction.

Concentration Areas

Culturally and Linguistically Diverse Education Concentration

This concentration helps licensed teachers enhance their skills and credentials for working with English language learners. This concentration emphasizes a socio-cultural 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. We emphasize the "whole learner" in our teaching and in teacher education, 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. Course work includes language teaching methodology, language acquisition, linguistic analysis of English, multicultural foundations, assessment, literacy, and other areas.

Literacy, Language and Culturally Responsive Teaching Concentration

Reading and Writing

This concentration will enhance your literacy instruction skills and credentials while providing advanced knowledge and training to work with diverse student populations as they develop reading, writing, and oral language skills. Course work includes language and literacy acquisition, culturally relevant teaching practices, literature, literacy assessment and informed instruction, hands-on practice, and other areas. We stress the importance of recognizing a variety of literacies - home, school, community, and mainstream - in both first and second languages, and the meaningful use of literacy and language to improve students' quality of life.

English Education

This concentration prepares licensed Secondary English or language arts teacher to work with diverse adolescents as they develop an appreciation for literature and composition. Course work includes theory and methods of English education, linking assessment and instruction, and practicum experience. The study of contemporary, ethnic, and classic literature, reading, and writing are woven together, along with speaking, listening, and viewing. We stress the importance of recognizing a variety of literacies - home, school, community, and mainstream - in both first and second languages, and the meaningful use of literacy and language to improve students' quality of life.

Mathematics Education Concentration

This concentration promotes elementary and secondary mathematics teachers' passion, confidence, and competence in providing mathematics teaching-learning processes informed by insightful theories, effective learning activities, and innovative teaching strategies, as well as by international perspectives. This concentration area focuses on integration of theory, research, and practice to enable teachers to make instructional decisions and implement mathematics lessons that promote students' conceptual understandings and problem solving, including opportunities for doing research.

Science Education Concentration

This concentration promotes elementary and secondary science teachers' passion, confidence, and competence in providing science teaching-learning processes informed by insightful theories, effective learning activities, and innovative teaching strategies, as well as by international perspectives. This concentration area focuses on integration of theory, research, and practice to enable teachers to make instructional decisions and implement science lessons that promote students' conceptual understandings and problem solving, including opportunities for doing research.

Mathematics and Science Education Concentration

This concentration area combines the mathematics education and science education fields to prepare teachers who can bridge these disciplines into exciting and innovative programming for students. It draws on the learning activities and experiences provided in the mathematics education and science education concentration areas.

Special Education Concentration

This concentration emphasizes the development of reflective practitioners through trans-disciplinary training, fosters reflective inquiry about teaching and learning, as well as the development of the skills, knowledge, and dispositions necessary to teach in elementary and secondary classrooms serving students with disabilities. Reflection and inquiry provide an informed and integrated basis for advocating for all learners.

Early Childhood Education MA

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 (ages 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: 30 semester hours

The early childhood education program provides specialized training in:

- language development and disorders
- child growth and development, differences and disorders
- learning approaches with young children
- measurement and evaluation
- multicultural education
- research methods and current issues
- early childhood curriculum and program development for inclusive classrooms
- working collaboratively with parents and families
- program administration/leadership
- 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

For the MA in ECE 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 complete 510 hours of practicum experiences.

Economics MA

► Graduate School Policies and Procedures apply to this program

Admissions Advisor: Brian Duncan (brian.duncan@ucdenver.edu)

Schedule Advisor: Hani Mansour (hani.mansour@ucdenver.edu)

The MA program in economics is designed to train students in the quantitative and applied economic skills that will best enhance their future employment opportunities in the private and public sectors, or their pursuit of PhD studies in economics or related fields.

Our MA program emphasizes extensive training in mathematical and quantitative analysis, including the provision of substantial exposure to applied econometrics, working with large and diverse data sets, and a wide range of statistical software. The program gives students the applied skills that employers demand, provides those pursuing advanced degrees an edge in gaining admission to top-flight PhD programs-and enhances the likelihood of the student's ultimate success.

Admission Requirements

- Meet all general admission requirements of the Graduate School (including a 2.50 undergraduate grade-point average).
- Submit three letters of recommendation (at least two letters should come from individuals who are familiar with your scholarly record. The third can be an additional academic reference or professional reference from someone who knows you well and can comment on your potential as a graduate student).
- Submit official transcripts from all colleges attended.
- Have completed 15 credit hours of undergraduate economics, including intermediate microeconomic theory and intermediate macroeconomic theory (upper division courses).
- Have completed courses in calculus and statistics (preferably a year of calculus and a course in econometrics or similar upper division statistics course. A course in linear algebra and/or differential equations is recommended).
- Submit GRE scores. 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 in economics score 154 or above (690 or above using the prior test scale) on the quantitative section of the GRE. However, this is not a minimum GRE cutoff score, nor is it a score above which admission is guaranteed. GRE scores are used in conjunction with other indicators of academic success at the Master's level. Applicants must show strong evidence of quantitative ability either through high grades in math, statistics, and economic courses, a high quant score on the GRE, or preferably both.
- International students must submit TOEFL scores. The minimum required 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 minimum TOEFL scores are a requirement of the Graduate School and cannot be waived by the department of economics. The Graduate School may waive the TOEFL requirement for applicants who have attended a college or university in the United States as a full-time student and have completed two semesters of academic work with a "B" average (3.0 GPA or higher). Please contact the International Admissions office if you have questions about this requirement.

Application Deadlines:

Fall - June 1

Spring - December 1

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 in advance the application deadline.

International students who apply after the June 1 or December 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 Admissions.

Degree Requirements

The MA degree requires the completion of 30 semester hours of coursework, of which 21 hours are core requirements. Each student's plan will be worked out in conjunction with the graduate advisor.

Students are expected to meet all course prerequisites. A grade of B- or better is required in all courses, with a cumulative grade point average of B (3.0) or above. No course may be taken more than twice.

Core Courses

- 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 6054 - Seminar In Applied Economics II
- ECON 6073 - Research Seminar

Total: 21 hours

Electives

Three courses numbered 5000 or higher with an ECON prefix (9 semester hours). After completing 6 credit hours of ECON 6053/6054 as part of the economics core, additional ECON 6053/6054 courses may be counted as electives.

Total: 9 Hours

Degree Total: 30 Hours

Education & Human Development (EDHD) MA

Office: Lawrence Street Center, 701

Telephone: 303-315-6300

Fax: 303-315-6311

E-mail: education@ucdenver.edu

Website: www.ucdenver.edu/education

Faculty

Information about EDHD faculty is available online at www.ucdenver.edu/education.

Master's Degree

The MA program in education and human development prepares students to facilitate the teaching/learning process and to lead and work in community-based environments. Thus, many students pursue the degree to enhance their skills as professional classroom teachers or lead in the community. The degree also provides skills necessary for a variety of roles in educational and teaching settings or community environments where knowledge of learning, development, understanding family and community systems, motivation, and research is essential such as teaching at the community college and teaching-based colleges and universities levels, teaching adults, consulting, developing assessments, community-based leadership, and conducting program development and evaluation. Other students seek the MA as preparation for advanced study in educational psychology, family science and human development, research, or related fields.

Areas of Study

Four major areas of concentration are available- learning, human development and family relations, research and evaluation, and assessment. Regardless of the concentration area selected, all students must:

- demonstrate competence in education and human development by successfully completing 30 semester hours of relevant course work;
- complete a capstone experience either an applied project or a master's thesis in consultation with their faculty advisor based on the students' professional and academic goals; and

Learning

This program prepares students to apply research-based knowledge and to develop culturally relevant knowledge and skills that inform a wide range of practices and issues within the field of education and innovative learning environments. This program concentration provides opportunities for the student to develop an in-depth understanding about human learning across age groups, in formal and informal educational and community contexts. Courses will focus on the learning process including cognition, instructional design, motivation and developmentally appropriate practices to support learning for children, adolescents and adults within a sociocultural framework..

Human Development and Family Relations (HDFR)

Students will engage in developing their skills to work in and lead community-based organizations including, but not limited to secular, faith-based, for profit, nonprofit, school-based, and local, state, federal and international organizations. The importance of family diversity and social justice is stressed throughout the HDFR curriculum through its courses and experiences. Students can also develop their knowledge in family relations in preparation for doctorate studies in family science and human development or related areas.

The EDHD program does provide a pathway for MA students (HDFR and Learning areas) to pursue their PhD in EDHD with a Family Science and Human Development concentration. For more information please visit our School of Education and Human Development.

Students who complete the MA in EDHD with a HDFR emphasis will also be eligible to complete the bilingual (Spanish) Family and Community Services concentration area in preparation to work with Spanish speaking families and communities. Advisor approval is required for this concentration.

The HDEF area also provides classes to all School of Education and Human Development (SEHD) graduate programs, offering courses in family theories, family dynamics, and diverse family systems, Latino family, school and community systems, family resource management, leadership and organizations, grant writing and fund raising, program development and other family relations based courses.

Research and Evaluation Methods (RSEM)

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.

Assessment

This program concentration provides opportunities for you to develop an in-depth understanding about educational psychology as it relates to learning-related assessment. You'll address issues in both classroom and large-scale assessment and focus on other forms of assessment, such as portfolios and performance assessments. You also may specialize in assessment in a content area like literacy or mathematics.

Electrical Engineering MEng

► Graduate School Policies and Procedures apply to this program

A minimum of 30 credit semester hour of academic work acceptable to the Advisory Committee (within the rules established by the College of Engineering and Applied Science) will be required for the Master of Engineering degree. In compliance with the Graduate School rules, the minimum grade required for a unit to count toward the 30 semester hours is a B minus (2.7). To couple this degree with electrical engineering, at least 15 of these hours must be 5000-level or above in electrical engineering courses, and must be taken in the CU Denver Department of Electrical Engineering. As many as 15 hours can be taken outside of electrical engineering, including 3 credit hours for the master of engineering project. The project should cover some area of creative investigation performed by the student and may relate directly to his/her professional work. The project must be defended orally before the Advisory Committee.

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 Policies and Procedures apply to this program

To fulfill the requirements for the master of science in electrical engineering (MSEE), the Electrical Engineering Department at CU Denver requires that within a seven-year period, the candidate completes and approved program in one of two options: (a) a **thesis option** consisting of at least 30 semester hours, including 6 credit hours of MS thesis, or (b) a **course-only option** consisting of at least 30 semester hours. It is also required the the

MSEE candidate maintain a grade point average of 3.0 or higher. In compliance with the Graduate School rules, the *minimum* grade required for a unit to count toward the required semester hours is B minus (2.7).

For both thesis and course-only master of science in electrical engineering options, the student must select a primary area of concentration and a secondary area of concentration, among the six areas listed below. The areas should be chosen a priori with the student's graduate advisor. The student must take at least four 3-hour graduate courses (12 credit hours) in his/her primary area of concentration, and at least two 3-hour graduate courses (6 credit hours) in his/her secondary area. All of these courses must be taken through the CU Denver EE Department. The remaining courses may be taken from any area of concentration. A student may also take one 3-credit independent study course with a graduate faculty member of the CU Denver EE department. At least 21 graduate credit hours must be taken from the CU Denver EE Department. At the discretion of the EE graduate committee, a maximum of nine graduate credits may be transferred from other programs.

The CU Denver EE Department offers six areas of concentration at the master's level:

1. Communications and Signal Processing
2. Computer Engineering and Embedded System Design
3. Controls and Signal Processing
4. Electromagnetic Fields, Waves and Optics
5. Energy and Power Systems
6. Microelectronics and VLSI

English MA

► Graduate School Policies and Procedures apply to this program

Program Director: Philip Joseph

Telephone: 303-556-4648

E-mail: philip.joseph@ucdenver.edu

The department offers an English MA degree focused around five core courses with specializations available in literature, rhetoric and the teaching of writing, and applied linguistics.

Contact the graduate program director for more information on these programs.

Requirements for Admission

The deadline for summer or fall admission is April 1; the deadline for spring is October 1. Complete applications 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 general test, which includes 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 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 CU 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 graduate advisor. 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 Policies and Procedures.) For more information, contact the graduate program director at 303-556-2575.

Degree Requirements

GENERAL REQUIREMENTS

- Satisfactory completion of all required course work
- 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)

Total Hours Required: 30-33 hours

All courses are 3 credit hours unless otherwise noted.

Students must receive a *B-* or above in all courses counted toward the MA degree.

REQUIRED COURSES

- ENGL 5100 - Introduction to Graduate Studies
- ENGL 5135 - English Language Study
- ENGL 5145 - Theory
- ENGL 5155 - Genres of Writing
- ENGL 5165 - Literacy and Technology

Total: 15 Hours

AREA REQUIREMENTS

Students may choose to concentrate 12 hours of English graduate courses in a particular area of study that meets the student's goals in the program.

Total: 12 Hours

THESIS OR PORTFOLIO OPTIONS

- ENGL 6950 - Master's Thesis
(4-6 hours)
Students must consult with and submit a proposal to the graduate committee for approval.

or

- ENGL 6970 - Portfolio Exam
(3 hours)

Total: 3-6 Hours

Additional Information

Candidate for Degree: Graduate students must be registered for at least one credit hour during the semester that they graduate. Those who have completed all required courses and requirements may register for Candidate for Degree: CAND 5940 section 900.

Teaching Assistantships: Graduate students who receive a teaching assistantship must take ENGL 5913 - Practicum in Language and Rhetoric in the fall during their first semester as a teaching assistant. ENGL 5913 may also be counted as an elective.

Independent Study: Graduate students may only count 6 credit hours of Independent Study toward the English MA degree.

Environmental Sciences MS

- Graduate School Policies and Procedures apply to this program

Program Director: Anne Chin

Office: North Classroom, 3522

Telephone: 303-556-3958

Fax: 303-556-6197

E-mail: anne.chin@ucdenver.edu

Web site:

<http://www.ucdenver.edu/academics/colleges/CLAS/Departments/ges/Programs/MasterofScience/Pages/MasterofScience.aspx>

Core Faculty of the M.S. in Environmental Sciences Program

Professors:

Anne Chin, Geography and Environmental Science
Pamela Jansma, Geography and Environmental Science
Deborah S.K. Thomas, Geography and Environmental Science

Associate Professors:

Casey Allen, Geography and Environmental Science
Peter Anthamatten, Geography and Environmental Science
Frederick B. Chambers, Geography and Environmental Science
Rafael Moreno-Sanchez, Geography and Environmental Science
Brian Page, Geography and Environmental Science
Gregory Simon, Geography and Environmental Science
Brian S. Wee, Geography and Environmental Science
John W. Wyckoff, Geography and Environmental Science

Assistant Professors:

Christy Briles, Geography and Environmental Science

Senior Instructors:

Amanda Weaver, Geography and Environmental Science
Daniel Liptzin, Geography and Environmental Science

Instructors:

Matthew Cross, Geography and Environmental Science

Lecturers:

Richard DeGrandchamp, Geography and Environmental Science

Faculty Affiliates to the M.S. in Environmental Sciences Program

Professors:

N. Y. Chang, Civil Engineering
Diana F. Tomback, Integrative Biology

Associate Professors:

Leo P. Bruederle, Integrative Biology
Greg Cronin, Integrative Biology
Michael J. Green, Integrative Biology
Glenn T. Morris, Political Science
Timberly M. Roane, Integrative Biology
Michael Wunder, Integrative Biology

Assistant Professors:

Annika Mosier, Integrative Biology
Alan Vajda, Integrative Biology

Environmental Sciences is a multidisciplinary study of the natural/physical environment. 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).

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 path 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 social sciences. The goals of the program are (1) to enhance the interdisciplinary communication and analytical skills of the student, and (2) to 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 MS in 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 have 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*)
- either two semesters of general chemistry with lab or two semesters of general biology with lab
- one semester of physics

If only two semesters of the 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. CU 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 March 1st deadline.

Financial Aid

There are three types of financial aid available: student hourly teaching assistantship; 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 assistance at the time of admission to the program. Continuing students will be regularly apprised of available aid and positions. All other aid should be requested through the CU Denver Financial Aid

Office, Student Commons Building 5th floor, Campus Box 125, P.O. Box 173364, Denver, CO 80217-3364.
Telephone: 303-315-1850.

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 non-thesis program. General requirements for the program include a set of core courses (12 semester hours) and elective courses (24-27 semester hours minimum). Students choosing to complete the thesis option must also complete 3 hours of thesis credit, while those choosing the non-thesis option must complete 3 hours of additional elective coursework.

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.

Thesis Option

36 hours of coursework + 3 thesis hours:

- ENVS 6002 - Research Topics in Environmental Sciences (3 hours)
- ENVS 6004 - Research Methods in Environmental Science (3 hours)
- ENVS 6100 - Research Topics in Environmental Management (3 hours)
- ENVS 6800 - Community-Based Research Practicum (3 hours)
- 24 hours of elective courses
- GEOG 6950 - Master's Thesis (3 hours)

Non-thesis Option

39 hours of coursework:

- ENVS 6002 - Research Topics in Environmental Sciences (3 hours)
- ENVS 6004 - Research Methods in Environmental Science (3 hours)
- ENVS 6100 - Research Topics in Environmental Management (3 hours)
- ENVS 6800 - Community-Based Research Practicum (3 hours)
- 27 hours of elective courses

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 24-27 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 or 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: Frederick Chambers

Telephone: 303-556-4520

E-mail: Frederick.Chambers@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: Christy Briles

Telephone: 303-352-3962

E-mail: Christy.Briles@ucdenver.edu

Required Courses

- BIOL 5415 - Microbial Ecology
- ENVS 5010 - Landscape Geochemistry

Total: 6 Hours

Electives

Choose two:

- ENVS 5731 - Mountain Biogeography
- ENVS 6220 - Toxicology (see Note 2)
- BIOL 5050 - Advanced Biology Topics
(when Seminar in Aquatic Ecology is the topic)
- BIOL 5154 - Conservation Biology
- 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)
- GEOG 5710 - Disasters, Climate Change, and Health
- 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: 303-556-6039

E-mail: bryan.wee@ucdenver.edu

Required Courses

- ENVS 5340 - Equity & Culture in Science Education: Local/Global
- ENVS 5650 - Environmental Education

Total: 6 Hours

Electives

Choose two:

- ANTH 5170 - Culture and the Environment
- BIOL 5154 - Conservation Biology
- COMM 5282 - Environmental Communication
- ENVS 5020 - Earth Environments and Human Impacts
- ENVS 5470 - Sustainable Urban Agriculture Field Study II
- GEOG 5265 - Sustainability in Resources Management
- GEOG 5335 - Contemporary Environmental Issues
- GEOG 5440 - Science, Policy and the Environment

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:

- GEOG 5050 - Applied Spatial Statistics
- GEOG 5086 - FOSS4G Systems Integration
- GEOG 5091 - Open Source Software for Geospatial Applications
- GEOG 5092 - GIS Programming and Automation
- CVEN 5382 - GIS Spatial Database Development
- CVEN 5385 - GIS Relational Database Systems

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.

URBAN AGRICULTURE OPTION

Option Advisor: Amanda Weaver

E-mail: amanda.weaver@ucdenver.edu

Required Courses

- ENVS 5450 - Urban Food and Agriculture: Perspectives and Research
- ENVS 5460 - Sustainable Urban Agriculture Field Study I

Total: 6 Hours

Electives

Choose two:

- ENVS 5340 - Equity & Culture in Science Education: Local/Global
- ENVS 5470 - Sustainable Urban Agriculture Field Study II
- GEOG 5060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 5085 - GIS Applications for the Urban Environment
- GEOG 5235 - GIS Applications in the Health Sciences
- GEOG 5640 - Urban Geography: Denver and the U.S.
- GEOG 5680 - Urban Sustainability: Perspectives and Practice

Total: 6 Hours

Option Total: 12 Hours

WATER QUALITY OPTION*

Option Advisor: Anne Chin

Telephone: 303-553-3958

E-mail: anne.chin@ucdenver.edu

Required Courses

- BIOL 5416 - Aquatic Ecology
- ENVS 5280 - Environmental Hydrology

Total: 6 Hours

Electives

Choose two:

- ENVS 5410 - Aquatic Chemistry
- CVEN 5333 - Surface Water Hydrology
- CVEN 5334 - Groundwater Hydrology
- CVEN 5335 - Vadose Zone Hydrology
- CVEN 5336 - Urban Runoff Quality and Quantity Modeling
- CVEN 5393 - Water Resources Development and Management

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 elective courses have prerequisites; student must have met these requirements in order to take the course.
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. Courses applied to either a certificate* or an MS degree may later be applied toward the other if all pertinent coursework is completed within a fiveyear time period.
4. Students should fill out and submit all relevant department forms for their files. Importantly, all petitions for course substitutions and identification of where courses fit as electives, with the subsequent approval/denial, should be submitted to this file.
5. By the end of the first semester, each student should identify and declare whether or not s/he is pursuing the thesis or non-thesis option. If intending to pursue the thesis option, the student should identify and gain agreement from a content advisor for guiding the thesis, filling out and submitting the appropriate departmental form.
6. Many of the electives have pre-requisites; students must have met these requirements in order to take the course.
7. Students may transfer up to 9 hours of approved graduate-level credit into the program. These courses must be approved by the Graduate Director and they may not replace core courses
8. Students may count up to 6-credit hours of independent, with a maximum of 3-credit hours per independent study towards elective credit in the major as approved by the Graduate Director. No more than 3 credit hours of independent study may be taken with the same instructor and they may not be taken in the same term.
9. Students may count up to 6-credit hours of internship in total, but 3-credit hours per internship and per entity (sponsorship may be with same professor sponsor)
10. Students may not count 4000-level courses towards electives in the program; this may be petitioned to the Graduate Committee in exceptional cases.
11. Students may take a maximum of 2 online courses, or petition to the GES Graduate Committee beyond two.
12. Students may enroll in thesis preparation and writing hours only after submission of signed committee form, which requires approval of the thesis proposal.
13. Students will not receive a grade for thesis preparation and writing hours until the thesis is successfully defended.
14. Students must follow the graduate school deadlines for submission of paperwork for the graduation application, comprehensive exam, and any other deadlines. Links to these can be found on the GES/MS website:
<http://www.ucdenver.edu/academics/colleges/CLAS/Departments/ges/Programs/MasterofScience/Pages/Fo rms.aspx>
15. Work submitted for the environmental sciences options must have a grade of B (3.0) or better.

* The Geospatial, Environmental Education, and Urban Agriculture options of the program lead towards independent graduate certificates. These certificates may be earned without entrance into the MS in environmental sciences program. (See the Geographic Information Science Graduate Certificate, Sustainable Urban Agriculture Graduate Certificate, and Environmental Science Education Graduate Certificate descriptions.)

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: Jian Yang

Email: Jian.Yang@ucdenver.edu

Telephone: 303.315.8423

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 of a financial accounting course taken within the last ten years with a "B-" grade or higher. Students are also expected to be knowledgeable in spreadsheet software.

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
- FNCE 6382 - Survey of Financial Derivatives

Specializations: (12 hours)

Students must complete one of the following specializations:

Finance Specialization

Students must select at least 3 courses with **FNCE/CMDT/RISK** prefix, numbered 6000 or higher. Remaining Finance Elective may be any of the following courses: **FNCE/CMDT/RISK** course numbered 6000 or higher, **ACCT 6140** Tax Planning for Managers, **ACCT 6340** Financial Statement Analysis, **ENTP 6824** Entrepreneurial Financial Management, **ECON 5803** Mathematical Economics, **ECON 5813** Econometrics I, **ECON 5823** Econometrics II, **ECON 6801** Advanced Mathematical Economics, **MATH 5792** Probabilistic Modeling, or **MATH 5390** Game Theory.

Financial Analysis and Management Specialization

Select three or four of the following courses:

- CMDT 6682 - Trading in Commodity and Financial Markets
- 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 6410 cannot be used towards specialization if taken in Finance core.
- 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

- RISK 6129 - Practical Enterprise Risk Management
- RISK 6809 - Principles of Risk Management & Insurance
- RISK 6909 - Corporate Risk Management
- RISK 6509 - Global Risk Management

If 3 courses completed from list above, select 1 course from the list below:

- ACCT 6140 - Tax Planning for Managers
- ACCT 6340 - Financial Statement Analysis
- CMDT 6582 - Commodity Supply Chain Management
- CMDT 6802 - Foundations of Commodities
- ENTP 6824 - Entrepreneurial Financial Management
- MATH 5390 - Game Theory

Financial and Commodities Risk Management Specialization

Select three or four of the following courses:

- CMDT 6682 - Trading in Commodity and Financial Markets
- 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 Derivatives *
- FNCE 6410 - Real Options and Decisions Under Uncertainty *

*FNCE 6380, FNCE 6382, or FNCE 6410 cannot be used towards specialization if taken in Finance core.

- FNCE 6460 - Emerging Market Finance
- FNCE 6480 - Financial Modeling
- RISK 6129 - Practical Enterprise Risk Management
- RISK 6509 - Global Risk Management
- RISK 6809 - Principles of Risk Management & Insurance
- RISK 6909 - Corporate Risk Management

If three courses completed from above list, complete one course from the list below:

- CMDT 6582 - Commodity Supply Chain Management
- CMDT 6802 - Foundations of Commodities
- ECON 5823 - Econometrics II
- ECON 6801 - Advanced Mathematical Economics
- MATH 5351 - Actuarial Models
- MATH 5792 - Probabilistic Modeling

Risk Management and Insurance Specialization

Required Courses:

- RISK 6129 - Practical Enterprise Risk Management
- RISK 6809 - Principles of Risk Management & Insurance
- RISK 6909 - Corporate Risk Management

Quantitative Elective

Select 1 of the following:

- CMDT 6582 - Commodity Supply Chain Management
- CMDT 6682 - Trading in Commodity and Financial Markets
- CMDT 6802 - Foundations of Commodities
- ECON 5823 - Econometrics II
- ENTP 6824 - Entrepreneurial Financial Management
- FNCE 6340 - Business Firm Valuation
- FNCE 6350 - Financial Innovations
- FNCE 6360 - Management of Financial Institutions
- FNCE 6380 - Futures and Options *
- FNCE 6382 - Survey of Financial Derivatives *
- FNCE 6410 - Real Options and Decisions Under Uncertainty *

*FNCE 6380, FNCE 6382, or FNCE 6410 cannot be used toward specializations if taken in the Finance and Risk Management Core.

- FNCE 6411 - International Corporate Governance
- FNCE 6420 - Mergers and Acquisitions
- FNCE 6480 - Financial Modeling
- MATH 5351 - Actuarial Models
- MATH 5792 - Probabilistic Modeling
- RISK 6309 - Strategic Risk Management
- RISK 6409 - Employee Benefits and Workforce Risk Management
- RISK 6509 - Global Risk Management
- RISK 6800 - Special Topics: Cyber Risk Management & Cyber Warfare

There may be additional prerequisite courses for the ECON and/or MATH selections. Please check with those departments or the graduate advisors.

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 Derivatives
 - FNCE 6410 - Real Options and Decisions Under Uncertainty

Finance and Risk Management Electives (6 hours)

Select any two FNCE/RISK 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

The Economics Specialization is a stand alone program which requires 30 credit hours

Total 30 credit hours

Global Energy Management MS

Program Advisor: Sarah Derdowski

Telephone: 303-315-8065

E-mail: Sarah.Derdowski@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 and Communications
- 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 Website 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.

Graduate Teacher Education Program: Master of Arts in Education and Human Development with a concentration in Teaching in Diverse Contexts

Return to: School of Education & Human Development

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

Graduate Teacher Education Program Overview

The Graduate Teacher Education is housed within the Education and Human Development Master of Arts degree with a concentration in Teaching in Diverse Contexts. The Graduate Teacher Education program prepares educators who are culturally affirming and responsive, collaborate closely with families and communities, and have the knowledge and skills to create engaging, relevant, and rigorous classroom communities where all students can achieve and grow. We work alongside our P-12 partner educators throughout the CU Denver Professional Development School Network comprised of over 20 urban schools across numerous districts in the Denver metro region. Teacher education students live the life of a teacher for an entire academic year while enrolled in the program through a series of residency internships in a professional development school. Ultimately our goal is that all teacher candidates-whether their emphasis is elementary, secondary, or special education-- have the unique knowledge and skills to positively impact urban and diverse schools and act with a sense of urgency to support equity in education for all children. The Graduate Teacher Education Program is a nationally accredited program that exceeds expectations.

Education Pathways

The graduate teacher education program at CU Denver is designed to allow individuals with a minimum of a bachelor's degree to seek a master's degree along with an initial Colorado 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 Structure

The program admits teacher candidates in cohort groups that begin either in the summer or fall. The cohort model provides a unique learning community for candidates and engenders significant support for success. The program includes full time 1 - 1.5 year licensure plans for regular education and a 1.5 - 2 year full time option for initial special education and dual special education. Students enroll in course work at the university and clinical internships in one of CU Denver's professional development schools throughout the program. By enrolling in several courses and internships together, elementary, secondary, and special education teacher candidates are well prepared to support K-12 students with a wide range of diverse needs.

Once teacher candidates complete the licensure portion of the program, they are eligible to begin teaching. Candidates then complete the MA in Education and Human Development by taking one final three credit hour course. In addition, students have the option of pursuing an MA in Curriculum and Instruction in their choice of specialization (see MA Options below).

Clinical Experience in Professional Development Schools

While in the licensure portion of the program, teacher candidates intern in a professional development school for an entire academic year, gradually beginning with two days a week early on and increasing over time to five days per week by the end of the program. University courses are closely integrated with the sequence of clinical internship experiences providing teacher candidates with multiple opportunities to engage in the authentic work of teachers. Teacher candidates co-teach closely with practicing teachers in the school and gradually assume full responsibility for teaching by the end of the program. Elementary teacher candidates generally spend an entire academic year in a single partner elementary school, whereas secondary teacher candidates spend their internships in one of the partner middle schools and one of the partner high schools. Special education teacher candidates complete internships at multiple levels, P-12 due to the wide-span of their license that enables them to support students with special needs ages 5-21. The schools are located in several Denver metropolitan districts 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 school is supported by a site professor from the university one day per week and by a master teacher, called a site coordinator, who supports teacher candidates through their academic year of internships.

Assessment

Both the coursework and the internship experiences have been created to align with the Colorado Teacher Quality Standards, as well as frameworks for culturally and linguistically responsive instruction and Universal Design for Learning. Students in all programs engage in a common set of learning opportunities and internship assessments. They also engage in Program Level Assessments at different stages of the program. Colorado mandates that all teacher education programs be "performance based" in order to recommend candidates completing the program for licensure; thus all candidates in the Urban Community Teacher Education program must demonstrate proficiency in both the university-based coursework and their internships.

Programs of Study

Due to the complex nature of teacher preparation that is governed by state and national accreditation and legislative mandates that can change from year to year, please see current programs of study in the teacher education handbook.

Master's Degree Options

The Graduate Teacher Education Program views 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 complete the MA in Education and Human Development with a concentration in Teaching in Diverse Contexts by taking one final three credit hour course.

Students may also pursue an MA in Curriculum & Instruction with multiple options to obtain specialized knowledge in specific areas of curriculum & instruction like Literacy & Language, Culturally & Linguistically Diverse Education, STEM, Special Education, and others. These options typically require 12-15 additional credits and can also be coupled with added endorsements from the Colorado Department of Education. Students should refer to the information for the Curriculum and Instruction program for specifics.

Requirements for Admission

Admission Deadline: February 1 for both summer and fall start dates.

Graduate Teacher Education Information Sessions

All prospective teacher candidates are strongly encouraged to attend an information session before applying to the program. Information sessions are typically held both face-to-face and through online webinars lasting approximately 60-90 minutes (check the SEHD website for exact dates and times). An advisor will be available to review prospective students' transcript and provide pre-admission advising. To more effectively facilitate this process, please bring copies of all transcripts with you.

Prerequisite Content Review

Teacher licensure requires that all initial licensure candidates hold a degree or have sufficient content knowledge obtained through university coursework aligned to the licensure area the candidate will be teaching. A prerequisite content review of a candidate's bachelor's degree transcript is required to determine if the candidate meets the minimum requirements or will have to take additional prerequisite content courses.

Graduate Teacher Education Admission Requirements

- Competitive undergraduate cumulative GPA of 3.0
- Completion of any outstanding prerequisite content courses that are needed per a transcript evaluation.
- A complete application which can be obtained online at www.ucdenver.edu/education which includes transcripts, essays, recommendations, and an interview.

Health Administration MS

Program Director: Errol L. Biggs

Telephone: 303-315-8851

E-mail: errol.biggs@ucdenver.edu

The goal of the master of science in health administration degree is to prepare students, 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)

Advisor will evaluate transcript for possible waivers in the CBK.

- BUSN 6521 - Leading Individuals and Teams
- BUSN 6530 - Data Analysis for Managers
- BUSN 6550 - Analyzing and Interpreting Accounting Information
- 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 6561 - Marketing Management (Health Section)
- BUSN 6621 - Applied Economics for Managers (Health Section)
- BUSN 6711 - Strategic Management (Health Section) *This course is intended to be taken in your last Spring semester.
- HLTH 6010 - Health Care Systems
- HLTH 6770 - Healthcare Quality and Outcomes
- HLTH 6911 - Health Field Studies *This course is intended to be taken in your last Spring semester. Pre-req: HLTH 6010 or consent of instructor, minimum 3.0 cumulative GPA.

C. Health Administration Information Technology Elective: (3 hours)

Select one of the following courses:

- HLTH 6071 - Introduction To Health Information Technology
 - HLTH 6072 - Management of Healthcare Information Technology
- Please note: 2nd Health Administration Information Technology course may be used as Health Administration elective

D. Health Administration Electives: (6 hours)

Select two of the following courses:

- ENTP 6801 - Building Biotechnology
- ENTP 6848 - Leadership in New Ventures

- HLTH 6740 - Profiles in Health Care
- HLTH 6070 - International Health Policy and Management
- HLTH 6075 - International Health Travel Study

* Students can also select HLTH 6071 or HLTH 6072 if not used as a Health Administration Information Technology Elective.

Notes and Restrictions

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 from the program director.

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.

Historic Preservation MS

► Graduate School Rules apply to this program

Program Director: Christopher Koziol

Office: CU Denver Building, 320O

Telephone: 303-315-5874

E-mail: christopher.koziol@ucdenver.edu

The master of science in historic preservation (MS HP) is a 45 semester-hour program, usually completed in 15 or 18 months (three regular semesters and possibly part or all of one summer). It is designed to accommodate the background and needs of both those students with substantial experience and those new to the field. The course of study is for students seeking training in spatial, technical and design aspects of the broader field; it encompasses architecture, cultural landscapes, preservation, planning, building technology, project management, documentation, interpretation and representation.

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 master of science in historic preservation program 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 benefited from some previous exposure to:

1. Mechanical drawing/sketching
2. CAD/BIM graphics
3. Graphics software such as Adobe Creative Suite

These competencies can be demonstrated by previous coursework 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 upon matriculation to the MS HP 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 semester hours (up to 15 semester 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. Students holding a master's degree in Architecture, Urban Planning or Landscape Architecture are typically awarded 12 to 15 semester hours of advanced standing.

Undergraduate Course Work

Undergraduate course work substantively equivalent to a MS HP 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 semester 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:

- 12 semester hours of core courses in preservation
- 6 hours in approved Design History courses
- 18 hours of electives
- 9 hours capstone requirement

Students enrolling full-time in the 45 semester 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 degree in historic preservation.

Our program is compliant with National Council of Preservation Education Standards.

Required Core Courses

Core Preservation courses (choose at least 4):

- HIPR 6010 - Preservation Theory and Practice
- HIPR 6110 - Regionalisms & the Vernacular
- HIPR 6210 - Historic Buildings in Context
- HIPR 6310 - Documentation, Analysis, Representation
- HIPR 6410 - Urban Conservation: Context for Reuse
- HIPR 6510 - Building Conservation
- HIPR 6610 - Reading the City

Choose at least 2 approved Design History courses (offerings vary); some examples are:

- ARCH 6210 - History of American Architecture
- LDAR 5521 - History of Landscape Architecture
- LDAR 6686 - Special Topics: Landscape Architecture
- URBN 6640 - History of the City
- URPL 6350 - Form and Formation of Cities

Total: 18 Hours

Electives

Choose 18 semester hours total, at least 9 semester hours from one of the groups below. (All courses = 3 semester hours unless otherwise noted)

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.

- PUAD 5110 - Seminar in Nonprofit Management
 - PUAD 5115 - Effective Grant Writing for Nonprofit and Public Sector Managers
 - URBN 6642 - Design Policy
 - URBN 6641 - Design Process
 - PUAD 5625 - Local Government Management
 - PUAD 5626 - Local Government Politics and Policy
 - HIPR 6610 - Reading the City
 - HIPR 6930 - Internship
 - ARCH 6450 - Pre-Design
- Or Non-Western Design history courses as available*

History

- GEOG 5350 - Environment and Society in the American Past
- HIST 5236 - Colorado Mining and Railroads
- HIST 5240 - National Parks History
- HIST 5242 - Oral History
- HIST 5229 - Colorado Historic Places
- HIST 5243 - Public History Administration
- HIST 5228 - Western Art and Architecture
- HIST 5244 - Interpretation of History in Museums: Exhibits and Education
- HIST 5231 - History in Museums
- HIST 5810 - Special Topics
- HIST 5234 - Introduction to Public History
- HIST 5232 - Historic Preservation

Capstone Work

Choose either 1. Professional Project or 2. Thesis and additional requirements.

1. HIPR 6851 - Professional Project (3 semester hours)
Preceded by ARCH 6450 Pre-Design

AND

HIPR 6930 Internship

OR

Preceded by HIPR 6170 Preservation Design Studio

OR

Preceded by pre-approved travel education

2. HIPR 6951 - Thesis (6 semester hours)

Preceded by LDAR 6949 - Research Tools & Methods (3 semester hours)

Total: 9 hours

History MA

- Graduate School Policies and Procedures apply to this program

The master of arts in history requires 37 semester hours (12 courses plus enrollment for one-credit hour in preparation for the Comprehensive Examination). Students who entered the program before fall 2015 have a 36-semester hour requirement and need only enroll for the additional one-credit hour Comprehensive Examination if they are not enrolled in anything else when they take that examination. 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. Students will also need a third advisor for the comprehensive examinations. This third advisor is typically in their major field and should always be consulted during preparation for the examinations.

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 that 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 the Public History and US History fields. Students will draw on these readings for their comprehensive exams. Students working 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 or methodological 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. Note that students may select their concentrations and the options for minors from the same lists, below.

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. Note that students may select their concentrations and the options for minors from the same lists, below.

Regional Concentrations/Minors

- American West
- Britain
- East Asia

- Germany
- Islamic World
- Latin America
- Western Europe

United States History Chronological Concentrations/Minors

- Colonial and Federal
- Nineteenth Century
- Twentieth Century

Public History Concentrations

- Historic Preservation
- Museum Studies
- State and Local History

Topical Concentrations/Minors-these can be regional or global and must be negotiated with your field advisors.

- Colonialism and Imperialism
- Cultural and Social History
- Diplomatic History and Foreign Policy
- Economic and Business History
- Environmental History
- Gender, Women and Sexuality
- Globalization
- Intellectual History
- Labor Nation and State Politics
- Race and Ethnicity
- Science, Medicine and Technology
- Urban History
- War and Revolution

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)

Major electives are made up of courses in the major and concentration, including readings courses, that 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

Minor 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: 37 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. Beginning in fall 2015, students must enroll in HIST 6940, Comprehensive Examination, a one-credit requirement connected to faculty commitment to preparing students for their examination.

- HIST 6940 - Comprehensive Exam

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 intend to become 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 will enroll for six credit hours in HIST 6950 over one or more semesters to complete their theses. Before registering for HIST 6950, students should have a thesis proposal and initial bibliography approved by their major advisor.

A thesis is evaluated by a committee of three faculty, 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 most 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 three credit hours 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 students who intend to become teachers 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 Policies and Procedures apply to this program

Requirements for Admission

General rules for admission into the Graduate School apply to admission into the MH program in addition to the following:

- evidence of a bachelor's degree
- two official copies of transcripts from all community colleges, colleges, and universities attended
- 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 CU Denver graduate-level courses as non-degree seeking students (unclassified student with a bachelor's degree) if they:

1. Wish to strengthen their record in order to demonstrate that they could successfully complete graduate-level courses in the program
- or-
2. Wish to start coursework toward the program prior to completing their application, with the understanding that taking courses does not guarantee admission.

Up to 12 semester hours of CU Denver 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 non-degree graduate student status, see the Information for Graduate Students section of this catalog. In the case of CU Denver graduate students transferring to the MH program, previous course work may be accepted as appropriate to the MH plan of study.

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 is a 36-semester-hour program, of which 30 hours must meet all specifications of the Graduate School. Throughout their work toward the MH 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 a general MH degree or focus their studies and course work on one of five tracks: Ethnic Studies, Philosophy and Theory, Social Justice, Visual Studies or Women and Gender Studies. Students also have the option of adding on a Women's and Gender Studies Graduate Certificate. All courses credited toward the MH degree must be taken at CU Denver (a maximum of 12 graduate semester hours may be transferred from other institutions after matriculating into the MH program, subject to the MH director's approval).

Each student's program is supervised by a MHMSS faculty. All independent study, project and thesis contracts must be approved in advance by the program director. A total of two independent study courses, two 4000-level undergraduate courses, and one internship 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 university departments. All students must pass an oral comprehensive exam on the project or thesis 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 Required Core seminars for the MH degree:

- HUMN 5025 - Foundations and Theories of Interdisciplinary 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 21-24 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 an MHMSS program faculty advisor.

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 wishing to count credits accrued from a study abroad program while pursuing the MH must follow the rules of the Graduate School and must have approval of the program director in advance of studying abroad.

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, must be completed at the end of the program. In order to proceed with a thesis or project, all students must submit to the program a proposal approved by their three faculty committee and the MH program director.

- HUMN 5950 - Master's Thesis
- HUMN 5960 - Master's Project

Total: 3-6 Hours

Oral Exam

An oral exam defending the project or thesis before a committee of three faculty members must be passed in order to graduate.

Optional MH Tracks

Students may also focus in one of the tracks in the Master of Humanities program: Ethnic Studies, Philosophy and Theory, Social Justice, Visual Studies or Women and Gender Studies. Tracks allow students to concentrate their studies in a more specifically defined field of interest. In addition to these tracks, MH students may also pursue a Women's and Gender Studies Graduate Certificate in conjunction with the MH degree and/or one of its tracks. In addition to the three MH core required courses, students must fulfill the minimum track or graduate certificate requirements and must complete a total of 36 credit hours in order to complete the degree. For detailed track requirements and courses, please see one of the MHMSS program faculty.

General MH Degree Total: 36 Hours

ILT-Teacher Librarian Leadership MA

Office: 999 18th St. Suite 144

Telephone: 720-639-9228

Fax: 303-315-6311

E-mail: cpe@ucdenver.edu

Website: <http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/MASTERS/SchoolLibrary/Pages/SchoolLibrary.aspx>

Faculty

Information about faculty is available online at

<http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/MASTERS/SchoolLibrary/Pages/SchoolLibrary.aspx> .

Program Overview

The Teacher Librarian Leadership program within the ILT master's degree program is a revised and approved teacher librarian education program that leads to the Colorado Department of Education endorsement for teacher librarians. The program integrates 21st Century Learning Standards as approved by the American Association of School Libraries with Common Core content standards and leadership competencies. The program adheres to the constructivist theory of resource-based learning, teacher leadership, instructional coaching, and media literacy. The program believes that teacher librarians as endorsed by a state's department of education 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 teacher librarian, you will provide collaborative instructional planning, facilitation of professional learning, utilization of information literacy, online instructional resources, and teacher leadership through the management of your library program and online. Courses are offered in a completely online program.

Once admitted, students begin a plan of study that typically takes about two years to complete. Consult the program website for more information about specific plans of study, course offerings and expectations of the program.

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 program website for complete admission procedures and requirements.

Professional Expectations

All students in the Teacher Library Leadership 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-Teacher Librarian Leadership 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, 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

ILT-Teacher Librarian Leadership students also have a choice between a teacher librarian endorsement - only for 24 graduate semester hours and a full master's program with a teacher-librarian endorsement. The master's program requires a minimum of 30 graduate semester hours. Students complete a plan of study consisting of courses and

professional field experience. Students must be licensed as a teacher or plan to complete a teacher endorsement prior to seeking the additional endorsement as a Teacher Librarian. This is a Colorado Department of Education requirement.

An Example of Two-Year Plan for Teacher Librarian Program

Consult with your program and faculty advisor for a current example of a program plan of study.

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.

30 Credit MA Degree Plan of Study

Prefix: Course Title	Term offered:	Credits
SCHL 5100: School Libraries in the Digital Age	Fall	3
SCHL 5030: Information Literacy & Reference	Fall	3
SCHL 5160: Managing School Library Programs	Spring	3
RSEM 5080: Research for Teachers or INTE 6720: Research in Information and Learning Technologies	Spring	3
SCHL 5200: Promoting Literacy through SL	Summer	3
SCHL 5913: School Library Field Experience	Fall	3
INTE 5300: Media Literacy and Maker Culture	Summer	3

CONCENTRATION STRAND - CHOOSE

Choose our Online Learning Certificate program or our Teacher Leadership Certificate program.	9
ePortfolio completed for graduation	0

Comprehensive Examination for All 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 Teacher Librarian Leadership program and endorsement requirements, see the program website.

Information and Learning Technologies - Digital Media for Teaching and Learning (K-12), Master of Arts

Students in this track may select a plan with or without an endorsement program in instructional technology. Courses in the endorsement option focus on the practical needs of teachers in their integration of technology and on ways to give leadership and professional-development opportunities to your school and district. The plan of study is accredited by NCATE and AECT and is designed in line with standards of the Colorado Department of Education (CDE.) You will create an online portfolio, referred to as a base camp. The base camp serves as a learning resource for your students, colleagues, and other professionals. Licensed teachers may complete an endorsement-only program in instructional technology consisting of 24 graduate semester hours.

Note: The courses in this program are fully online unless specified otherwise. Please consult the ILT Current Student Resources website for complete program requirements.

Comprehensive Examination for all ILT Students

The comprehensive exam consists of a professional portfolio, referred to as a base camp, wherein students demonstrate program competencies through work products and related accomplishments. The base camp is created throughout the ILT program and submitted for faculty review during the final semester. For more information, see the ILT Current Student Resources website.

Information and Learning Technologies - eLearning Design and Implementation, Master of Arts

The focus of this track is on the planning, design, development, delivery, facilitation and evaluation of digital and online learning resources, experiences, and programs for higher education, K-12, and professional-learning (corporate, healthcare, government, non-profit) audiences. Throughout the program, you will apply learning, instructional and media design, and professional-development theory to the creation of digital and online instructional products and experiences. You will experience interactive learning, hands-on projects, and collaborative teamwork while learning to create quality eLearning products and experiences and while encouraging innovation and positive change within your workplace. You will create an online portfolio, referred to as a base camp. The base camp helps you establish your professional web presence and digital footprint as a thought leader and helps showcase your accomplishments and share your work with your professional communities of practice. The entire program takes about two years to complete.

Please consult the ILT Current Student Resources website for complete program requirements.

Comprehensive Examination for all ILT Students

The comprehensive exam consists of a professional portfolio, referred to as a base camp, wherein students demonstrate program competencies through work products and related accomplishments. The base camp is created throughout the ILT program and submitted for faculty review during the final semester. For more information, see the ILT Current Student Resources website.

Information and Learning Technologies - Instructional Design and Adult Learning, Master of Arts

In this track, you complete 30 graduate semester hours of coursework from a set of core courses and approved electives within the ILT program. This track is designed to help you develop skills for creating quality instructional materials and professional-learning experiences that help adult-learning audiences learn and perform better on the job. Throughout the program, you will apply learning, instructional design (ID), and professional-development

principles to the creation of digital and web resources, multimedia presentations, job aids, and online learning modules. These skills are in high demand in corporate, healthcare, government, non-profit, and higher education settings. You will experience interactive learning, hands-on projects, and collaborative teamwork as you develop expertise in core ID skills: creating curriculum, evaluating program quality, encouraging innovation, and leading organizations toward productive change and growth. Like all ILT students, you will create an online portfolio, referred to as a base camp. The base camp helps you establish your professional web presence and digital footprint as a thought leader and helps showcase your instructional-design accomplishments to employers and other professionals. The entire program takes about two years to complete. All courses are entirely online unless specified otherwise.

All tracks require 30 semester hours and are available for fully online delivery. Please consult the ILT Current Student Resources website for complete program requirements.

Comprehensive Examination for all ILT Students

The comprehensive exam consists of a professional portfolio, referred to as a base camp, wherein students demonstrate program competencies through work products and related accomplishments. The base camp is created throughout the ILT program and submitted for faculty review during the final semester. For more information, see the ILT Current Student Resources website.

Information Systems MS

Program Director: Jahangir Karimi

Telephone: 303-315-8430

E-mail: Jahangir.Karimi@ucdenver.edu

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. Candidates for the MS degree are not required to take a comprehensive examination or to complete a thesis in the major field.

We offer a 4+1 program that allows our current undergraduate information systems students to pursue the master of science degree if they achieve a cumulative GPA of 3.50 or higher without taking the GMAT test. Students are also allowed to replace two undergraduate required information systems courses with two graduate information systems courses. Interested students please contact the Business School advising team for more information.

Information Systems Specializations

The specializations for the MS in Information Systems are designed to provide the fundamental knowledge necessary for a career as an IS professional. 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.

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.

Accounting Prerequisites: (6 hours)

Advisor will evaluate transcript for possible waiver of the prerequisites.

- ACCT 6031 - Intermediate Financial Accounting I
- ACCT 6054 - Accounting Systems and Data Processing

Information Systems AISAAC Course Requirements: (12 Hours)

- ISMG 6060 - Analysis, Modeling and Design
- ISMG 6080 - Database Management Systems
- ISMG 6180 - Information Systems Management and Strategy
- ISMG 6220 - Business Intelligence Systems and Analytics

AISAAC Common Course Requirements: (12 hours)

- ISMG 6040 - Business Process Management
 - ISMG 6830 - IT Governance and Service Management
 - ACCT 6020 - Auditing Theory
 - ACCT 6510 - Accounting and Information Systems Processes and Controls
- OR**
- ISMG 6510 - Accounting and Information Systems Processes and Controls

AISAAC Electives: (6 hours)

Select two of the following courses:

- ACCT 6340 - Financial Statement Analysis
- ACCT 6360 - Fraud Examination
- ACCT 6470 - Internal Auditing

- ACCT 6620 - Seminar: Auditing and Other Assurance Services
- 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.

Business Intelligence Required Courses: (6 hours)

- ISMG 6080 - Database Management Systems
- ISMG 6220 - Business Intelligence Systems and Analytics

Business Intelligence Electives: (15 hours)

Select five of the following courses:

- ISMG 6180 - Information Systems Management and Strategy
- ISMG 6340 - Cloud Computing Concepts, Tools, and Applications
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6450 - IT Project Management
- ISMG 6470 - Text Data Analytics and Predictive Modeling
- ISMG 6480 - Data Warehouse and Administration
- ISMG 6810 - Business Intelligence in Healthcare
- ISMG 6820 - Business Intelligence and Financial Modeling
- ISMG 6830 - IT Governance and Service Management
- BANA 6660 - Predictive Analytics

Business Intelligence IS Electives: (6 hours)

Select two courses numbered 6000 or higher with an ISMG prefix or an internship (by petition) plus one additional ISMG course numbered 6000 or higher. Students pursuing an additional specialization in GIS should fill this requirement with CVEN 5381, CVEN 5382, CVEN 5383, CVEN 5384, CVEN 5385, or CVEN 5386.

Business Intelligence Free Elective: (3 hours)

Select any one course numbered 6800 or higher with BUSN prefix or any course numbered 6000 or higher with prefix of ACCT, BANA, CMDT, ENTP, FNCE, INTB, ISMG, MGMT, MKTG, MTAX, or RISK. *Students pursuing an additional specialization in GIS should fill this requirement with CVEN 5381, CVEN 5382, CVEN 5383, CVEN 5384, CVEN 5385, or CVEN 5386.

NOTE: Some of these courses have prerequisites of a BUSN course that may not be listed in your degree plan. Check with an academic advisor to see if it is possible to waive the prerequisite based on previous coursework.

Cyber Security and Information Assurance Specialization

With recent breaches in the security of many large government agencies and private corporations, cyber security is an issue of great importance to the global society. Further, as corporations increasingly depend on digital solutions in new product development - from consumer shopping experiences and payment systems to driverless cars - the consequence of an electronic security breach will likely become more severe in the future. Colorado has large role in cybersecurity, particularly given Colorado's entrepreneurial focus, since small businesses typically cannot afford expensive security solutions that may be accessible to large corporations. The goal of this specialization is to support and enhance the cyber security of enterprises such as banks, governments, retail, health care institutions, law enforcement, construction, insurance agencies, transportation and the military. Naturally, organizations cannot outsource this protection but will have to have loyal and trustworthy employees trained in this discipline. Therefore, this area is likely to enjoy an ever-growing demand in the foreseeable future--and commensurate job opportunities.

Cyber Security and Information Assurance Core Courses: (6 hours)

Complete the required Core courses

- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6430 - Information Systems Security and Privacy

Cyber Security and Information Assurance Required Courses: (12 hours)

Complete the following Required courses:

- ISMG 6850 - Securing the Enterprise
- ISMG 6855 - Protecting the Enterprise
- ISMG 6870 - Securing Information Assets
- ISMG 6875 - Protecting Information Assets

Cyber Security and Information Assurance Electives: (12 hours)

Select four courses from the list below:

- ACCT 6020 - Auditing Theory
- ISMG 6080 - Database Management Systems
- ISMG 6180 - Information Systems Management and Strategy
- ISMG 6510 - Accounting and Information Systems Processes and Controls
- ISMG 6830 - IT Governance and Service Management
- RISK 6800 - Special Topics: Cyber Risk Management & Cyber Warfare

Digital Health Innovation Specialization

With the pervasive nature of Internet-based technologies, healthcare services are undergoing significant transformations where both providers and consumers have access to information for making informed decisions yielding the best possible outcomes. While providers are adopting or upgrading to state-of-the-art IT, the ongoing liberation of healthcare data has energized technology vendors, healthcare systems, start-ups, and researchers to develop new applications, tools, and products. The digital health entrepreneurship specialization is designed for developing knowledge, skills and capabilities in entrepreneurship models, business plans and market platforms for drugs, devices, diagnostics, healthcare IT products and services.

Digital Health Innovation Specialization Required Courses: (6 hours)

Complete the following two required courses:

- ISMG 6060 - Analysis, Modeling and Design
- ISMG 6080 - Database Management Systems

Digital Health Innovation Specialization Electives: (15 hours)

Complete five of the following courses:

- ENTP 6802 - Regulatory Environment of Life Science Innovation
- ENTP 6824 - Entrepreneurial Financial Management
- HLTH 6071 - Introduction To Health Information Technology
- HLTH 6072 - Management of Healthcare Information Technology
- ISMG 6020 - .Net Programming Fundamentals
- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6320 - Innovative Health Information Technologies
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6450 - IT Project Management

Digital Health Innovation Specialization IS Electives: (6 hours)

Select any two courses numbered 6000 or higher with an ISMG prefix OR complete an internship in the IS field plus one ISMG course numbered 6000 or higher.

Digital Health Innovation Specialization Free Elective: (3 hours)

Complete any one course number 6800 or higher with a BUSN prefix OR any course number 6000 or higher with the prefix of ACCT, BANA, CMDT, ENTP, FNCE, INTB, ISMG, MGMT, MKTG MTAX or RISK.

Enterprise Risk Management (ERM) Specialization

This specialization focuses on information technology as the primary driver of business strategy. Coursework focuses on the strategic, technological, financial and organizational issues involved with the effective management of information technology within an enterprise.

Enterprise Risk Management Prerequisites: (6 hours)

Advisor will evaluate transcripts for possible waivers of the prerequisites.

- BUSN 6530 - Data Analysis for Managers
- BUSN 6620 - Applied Economics for Managers

Enterprise Risk Management Required Courses: (15 hours)

- BUSN 6550 - Analyzing and Interpreting Accounting Information
- BUSN 6640 - Financial Management
- ISMG 6180 - Information Systems Management and Strategy
- RISK 6809 - Principles of Risk Management & Insurance
- RISK 6909 - Corporate Risk Management

Enterprise Risk Management Electives: (15 hours)

Select five of the following courses:

- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6450 - IT Project Management
- ISMG 6460 - Emerging Technologies
- ISMG 6820 - Business Intelligence and Financial Modeling
- ISMG 6830 - IT Governance and Service Management
- RISK 6129 - Practical Enterprise Risk Management
- RISK 6509 - Global Risk Management
- RISK 6309 - Strategic Risk Management
- RISK 6800 - Special Topics: Cyber Risk Management & Cyber Warfare

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.

Enterprise Technology Management Required Courses: (6 hours)

- ISMG 6040 - Business Process Management
- ISMG 6180 - Information Systems Management and Strategy

Enterprise Technology Management Electives: (15 hours)

Select five of the following courses:

- ISMG 6080 - Database Management Systems
- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6220 - Business Intelligence Systems and Analytics
- ISMG 6430 - Information Systems Security and Privacy
- ISMG 6450 - IT Project Management
- ISMG 6460 - Emerging Technologies
- ISMG 6830 - IT Governance and Service Management

Enterprise Technology Management IS Electives: (6 hours)

Select two courses numbered 6000 or higher with an ISMG prefix or an internship.

*Students pursuing an additional specialization in GIS should fill this requirement with CVEN 5381, CVEN 5382, CVEN 5383, CVEN 5384, CVEN 5385, or CVEN 5386.

Enterprise Technology Management Free Elective: (3 hours)

Any course numbered 6800 or higher with BUSN prefix or any course numbered 6000 or higher with prefix of ACCT, BANA, ENTP, FNCE/RISK/CMDT, INTB, ISMG, MGMT, or MKTG.

*Students pursuing an additional specialization in GIS should fill this requirement with CVEN 5381, CVEN 5382, CVEN 5383, CVEN 5384, CVEN 5385, or CVEN 5386.

NOTE: Some of these courses have prerequisites of a BUSN course that may not be listed in your degree plan. Check with an academic advisor to see if it is possible to waive the prerequisite based on previous coursework.

Technology Innovation and Entrepreneurship (TIE) Specialization

Technological Innovation and Entrepreneurship Specialization is designed to prepare students for successful careers in innovation-related roles, allowing them to organize, develop, and commercialize information technology-based innovation in existing firms or to create new technology-based ventures. This specialization prepares students to evaluate opportunities and manage the process of innovation and builds the necessary knowledge and skills that enable leaders to seize market opportunities and drive strategic management and intelligent decision making. It includes courses in both Information Systems and Entrepreneurship and may also include an optional emphasis in Bio-innovation.

Technology Innovation and Entrepreneurship Required Courses: (12 hours)

- ENTP 6842 - New Concept Development
- ENTP 6020 - Business Model Development & Planning

- ENTP 6021 - Corporate Entrepreneurship
- ISMG 6460 - Emerging Technologies

Technology Innovation and Entrepreneurship IS Electives: (18 hours)

Select six courses from the two elective lists below for a total of 18 hours.

Select 2 or 3 of the following Entrepreneurship electives:

- ENTP 6620 - New Venture Operations and Project Management
- ENTP 6822 - Legal and Ethical Issues of Entrepreneurship
- ENTP 6824 - Entrepreneurial Financial Management
- ENTP 6826 - International Entrepreneurship
- ENTP 6848 - Leadership in New Ventures

If two ENTP courses were selected above, select four of the following Information Systems electives; if three ENTP courses were selected above, select three of the following Information Systems electives:

- ISMG 6020 - .Net Programming Fundamentals
- ISMG 6060 - Analysis, Modeling and Design
- ISMG 6080 - Database Management Systems
- ISMG 6120 - Internet and Mobile Technologies
- ISMG 6180 - Information Systems Management and Strategy
- ISMG 6220 - Business Intelligence Systems and Analytics
- 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.

Web and Mobile Computing Required Courses: (6 hours)

- ISMG 6060 - Analysis, Modeling and Design
- ISMG 6080 - Database Management Systems

Web and Mobile Computing Electives: (15 hours)

Select five 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 6340 - Cloud Computing Concepts, Tools, and Applications
- ISMG 6450 - IT Project Management
- ISMG 6480 - Data Warehouse and Administration

Web and Mobile Computing IS Electives: (6 hours)

Select any two courses numbered 6000 or higher with an ISMG prefix or an internship (by petition).

*Students pursuing an additional specialization in GIS should fill this requirement with CVEN 5381, CVEN 5382, CVEN 5383, CVEN 5384, CVEN 5385, or CVEN 5386.

Web and Mobile Computing Free Elective: (3 hours)

Any course numbered 6800 or higher with BUSN prefix or any course numbered 6000 or higher with prefix of ACCT, BANA, CMDT, ENTP, FNCE, INTB, ISMG, MGMT, MKTG, MTAX, or RISK.

*Students pursuing an additional specialization in GIS should fill this requirement with CVEN 5381, CVEN 5382, CVEN 5383, CVEN 5384, CVEN 5385, or CVEN 5386.

NOTE: Some of these courses have prerequisites of a BUSN course that may not be listed in your degree plan. Check with an academic advisor to see if it is possible to waive the prerequisite based on previous coursework.

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 Business Intelligence, Enterprise Technology Management, OR Web and Mobile Computing 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.

Student must first complete either the Business Intelligence, Enterprise Technology Management, OR Web & Mobile Computing Specialization.

Geographic Information Systems and Geomatics (GIS) Specialization Required Course: (3 hours)

Complete the following course:

- CVEN 5381 - Introduction to Geographic Information Systems

Geographic Information Systems and Geomatics (GIS) Option Elective Courses: (9 hours)

Complete three of the following courses:

- 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
- CVEN 5387 - Advanced Remote Sensing
- CVEN 5390 - Interactive Web Mapping GIS
- CVEN 5391 - Introduction to Geomatics
- CVEN 5392 - Unmanned Aerial Systems
- CVEN 5395 - GPS/GNSS

CVEN courses are offered through the College of Engineering in an online/video instruction format.

Integrated Sciences MIS

► Graduate School Policies and Procedures apply to this program

Program Requirements

The Master's program in Integrated Sciences (MIS) is designed to provide a broad-based, content-rich curriculum that integrates knowledge and methods from natural and physical sciences, mathematics, and computer science disciplines. MIS is a 30 semester-hour interdisciplinary program in which students take courses from two or three disciplines, identify a faculty mentor, and complete a Master's project or thesis. The signature aspect of the program is that the capstone experience must truly integrate the interdisciplinary content into a unified program of research.

Specifically, students are required to complete a coherent selection of classes in a minimum of two areas and a maximum of three areas within the disciplines of biology, chemistry, computer science, environmental sciences, geology, mathematics or physics. Each student must meet with the Program Director within the first semester of study to develop a program goal statement, which is used to guide his or her individualized curriculum. All classes applied 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.

With sufficient justification and with approval from the Program Director, students may take a maximum of 6 semester-hours outside of the program's areas of concentration. In addition, a maximum of 6 semester-hours of MINS independent study/internship coursework may be applied to the degree. All such contracts must be approved by the Program Director.

In accordance with Graduate School Rules, a minimum of 24 semester-hours must be at the graduate level (5000+). Under exceptional circumstances, up to 6 semester-hours may be taken at the 4000 level, with prior approval from 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.

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 Program Director no later than two semesters following admission to the program.

Core Requirement

Students are required to enroll in MINS 5200, Research Methods in Interdisciplinary Science, within their first year of the program. This course serves as an introduction to the program and helps students to develop research skills and to further their professional development. This course is offered in the fall semester only.

MINS 5200 Research Methods in Interdisciplinary Science

This course introduces methods used in interdisciplinary research in the physical and natural sciences, mathematics, and computer science and prepares students for developing research-based Master's project/thesis proposals. Topics include the scientific method and ethics, experimental design, data collection and analysis, literature searches, evaluation of scientific literature, scientific writing, and oral presentation. Prereq: Graduate Standing or Instructor Permission.

Concentration and Depth Requirements

The student must designate one area of concentration (the primary area of study) and one or two depth areas (the secondary and, if applicable, tertiary areas of study) within the disciplines of biology, chemistry, computer science, environmental sciences, geology, mathematics or physics. An interdisciplinary area of study (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 and a minimum of six semester hours in each depth area.

Project or Thesis Requirement

The program provides students with two options as their capstone experience, either a project or a thesis, depending on their academic and professional goals. All students must conduct independent research integrating coursework from the disciplines in their program of study. The research is conducted as either a project (requiring 3-4 semester-hours of MINS 5960) or a thesis (requiring 4-6 semester-hours of MINS 5950), and is presented to their examination committee in both written and oral forms. The student must successfully defend their project/thesis in an oral examination (defense) in order to graduate. Prior to enrolling in Project or Thesis hours, all students must submit a proposal approved by three faculty members (one of whom is their graduate faculty advisor) and the Program Director.

- MINS 5950 - Master's Thesis
- MINS 5960 - Master's Project

Degree Total: 30 Hours

International Business MS

Program Director: Manuel G. Serapio, Jr.

Telephone: 303-315-8436

E-mail: Manuel.Serapio@ucdenver.edu

An MS in International Business (MSIB) from the University of Colorado Denver opens opportunities for dynamic careers in global business. MSIB students gain cutting-edge knowledge and skills to help them conduct business across borders.

Our innovative MSIB curriculum combines solid grounding in business foundations and knowledge of international business environments.

Our degree emphasizes action learning such as live case studies, international consulting projects and internships, and study-abroad trips.

The University of Colorado Denver is the only Colorado university, and one of just 17 universities nationwide, granted the U.S. Department of Education's prestigious designation as a Center for International Business Education Research (CIBER), an honor earned in large part through the excellence of the international business program.

The MS program in International Business requires the completion of the following:

Prerequisites: (3 hours)

Select 1 of the following courses: BUSN 6520, BUSN 6550, BUSN 6560, BUSN 6620, or BUSN 6640.

Prerequisite choices should be based on course choices in the International Core courses and electives below. *(Advisors will evaluate transcripts for possible prerequisite waivers)*

Students who choose to take classes 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
or
 - ENTP 6826 - International Entrepreneurship
 - INTB 6200 - International Business Policy
- CAPSTONE COURSE - THIS COURSE IS INTENDED TO BE TAKEN NEAR THE END OF YOUR PROGRAM.

B. International Functional Core: (6 hours)

Select one course from the International Qualitative Requirement list below **and** select one course from the International Quantitative Requirement list below.

Select one course from the following International Qualitative Requirement list:

- ENTP 6826 - International Entrepreneurship
- INTB 6020 - Cross-Cultural Management
- INTB 6022 - International Business Negotiations

- INTB 6024 - International Trade Finance and Management
INTB 6024 may be used to satisfy **either** the International Qualitative or Quantitative Requirement.
- INTB 6026 - Marketing Challenges at the Global Frontier
- INTB 6040 - Managing Global Talent
- INTB 6094 - Marketing Issues in the Chinese Environment
- INTB 6500 - International Business Consulting
- INTB 6800 - Special Topics in International Business

Select one course from the International Quantitative Requirement list below:

- INTB 6370 - International Accounting
- INTB 6372 - International Financial Management
- INTB 6411 - International Corporate Governance
- INTB 6460 - Emerging Market Finance
- MTAX 6430 - International Taxation
- RISK 6800 - Special Topics: Cyber Risk Management & Cyber Warfare

D. International Elective: (15 hours)

Select any course numbered 6000 or higher with an INTB prefix **or** any graduate level business course that is cross-listed with an INTB prefix. May also select from the following: ACCT 6430 International Taxation, ENTP 6826 International Entrepreneurship, ENTP 6827 Global Action Projects for International Entrepreneurship or RISK 6800 Special Topics: Cyber Risk Management and Cyber Warfare. Travel study courses offered by the Business School also apply.

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, BANA, CMDT, ENTP, FNCE, INTB, ISMG, MGMT, MKTG, MTAX, or RISK. Note: students 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

Return to: College of Architecture and Planning

Prerequisites

Students are expected to have achieved a basic level of computer literacy prior to enrolling in the first semester of classes. The department offers a required Introductory Skills Workshop for students before classes begin that is particularly helpful for students who do not have a background in drawing or computer graphics. The workshop is scheduled each year prior to the beginning of fall semester.

Program Requirements

The landscape architecture program offers first professional and post-professional graduate courses leading to the degree master of landscape architecture (MLA). The program is fully accredited by the Landscape Architecture Accreditation Board (LAAB) and recognized by the Council of Educators in Landscape Architecture (CELA).

- The first-professional degree program requires a six-semester sequence of course work totaling 90 semester hours.
- The post-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 60 semester hours. Advanced standing is based on prior academic accomplishment.
- Students completing the College of Architecture and Planning's BSArch degree or an undergraduate design degree at another institution may be given advanced standing in the three-year program. Advanced standing is based on prior academic accomplishment.

Course Sequence (First Professional Degree)

(90-semester-hour MLA for students without a professional degree in landscape architecture or related professional field)

The curriculum consists of core and elective course work. Core courses are grouped into five components:

	<i>Semester hours</i>
Design Studios	36
History and Theory	12
Site Works	12
Media	9
Critical Practice	6
<i>Total core courses</i>	75
MLA Electives	9
General Electives	6
<i>Total electives</i>	15
<i>Total courses</i>	90

Typical 90-semester-hour sequence of courses for the first professional MLA degree (subject to change)

First Year

Fall

- LDAR 5510 - Graphic Media in Landscape Architecture
- LDAR 5521 - History of Landscape Architecture
- LDAR 5540 - Introduction to GIS
- LDAR 5572 - Landscape Ecology
- LDAR 5500 - Introductory Landscape Architecture Design Studio

Total: 15 Hours

Spring

- LDAR 5502 - Landscape Architecture Design Studio 2
- LDAR 5532 - Landform Manipulation
- LDAR 6630 - Site, Society and Environment
- LDAR 6641 - Computer Applications in Landscape Architecture

Total: 15 Hours

Second Year

Fall

- LDAR 5503 - Landscape Architecture Design Studio 3
- LDAR 6620 - Landscape Architecture Theory and Criticism
- LDAR 6631 - Landscape Construction Materials and Methods
- LDAR 6670 - Plants in Design

Total: 15 Hours

Spring

- LDAR 6604 - Landscape Architecture Design Studio 4
- LDAR 6605 - Landscape Architecture Design Studio 5

- LDAR 6949 - Research Tools & Methods
Two electives. **Semester hours:** 6

Total: 15 Hours

Third Year

Fall

- LDAR 6606 - Landscape Architecture Design Studio 6 (immersive)
Two MLA electives. One open elective. **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 (Advanced Professional Degree)

(60-semester-hour MLA for students with a professional degree in landscape architecture or related disciplines)

The curriculum typically requires 60 semester hours and two years of full-time study. The core curriculum consists of three groups:

	<i>Semester Hours</i>
Design	24
History and Theory	12-15
Media	3-6
Electives	9-18
<i>Total courses</i>	60

The department chair or associate 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 and Certificate Options

Students may enroll in a dual degree program with architecture (MArch) or urban and regional planning (MURP).

Students may add on the one-year master of urban design (MUD) degree, for which some advanced standing is typical in a dual-degree sequence.

Students also may be selected through an application process to participate in a dual degree MLA with Tongji University in Shanghai, China. A thesis is required for students participating in this program. Read more about this program on the department website.

A certificate in Geospatial Information Science (GIS) is also available to students interested in pursuing geospatial design.

Management and Organization MS

Program Director: Kenneth L. Bettenhausen
Telephone: 303-315-8425
E-mail: Kenneth.Bettenhausen@ucdenver.edu

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 the career-focused specializations.

The specializations include: business strategy, change and innovation, enterprise technology management, entrepreneurship and innovation, global management, leadership, managing human resources, managing for sustainability, sports and entertainment management and strategic 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

Management and Organization Core: (12 hours)

- BUSN 6520 - Leading Individuals and Teams
- MGMT 6320 - Leading Organizational Change
- MGMT 6360 - Designing Effective Organizations
- MGMT 6380 - Managing People for Competitive Advantage

Management and Organization Electives or Specialization: (12 hours)

A student may select any four MGMT, INTB or ENTP elective courses or complete one of the Management specializations, all of which include four courses.

Specialization Options:

- Business Strategy
- Change and Innovation
- Enterprise Technology Management
- Entrepreneurship and Innovation
- Global Management
- Leadership
- Managing Human Resources
- Managing for Sustainability
- Sports and Entertainment Management
- Strategic Management

Business Strategy

Complete four of the following courses:

- ENTP 6021 - Corporate Entrepreneurship
 - ENTP 6826 - International Entrepreneurship
- OR**
- INTB 6200 - International Business Policy
- Your selection may include up to 2 of the following FNCE/RISK 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
 - INTB 6022 - International Business Negotiations
- Or:
- INTB 6500 - International Business Consulting
 - MKTG 6010 - Marketing Strategy
 - MGMT 6610 - Business Strategy Lab
 - MGMT 6730 - Human Resources Management: Performance Management
 - MGMT 6803 - Visionary Leadership
 - RISK 6909 - Corporate Risk Management

Change and Innovation

Complete four of the following:

- MGMT 6730 - Human Resources Management: Performance Management
 - MGMT 6803 - Visionary Leadership
 - MGMT 6804 - Bargaining and Negotiation
 - MGMT 6808 - Leadership Development
- May include up to two of the following courses:
- BUSN 6830 - Business and the Natural Environment
 - MGMT 6821 - Managing for Sustainability
 - MGMT 6823 - The Sustainable Business Opportunity

Enterprise Technology Management

Required course (may be completed as a Free Elective):

- ISMG 6180 - Information Systems Management and Strategy
- Complete three of the following courses:
- ISMG 6040 - Business Process Management
 - ISMG 6120 - Internet and Mobile Technologies
 - ISMG 6430 - Information Systems Security and Privacy

- ISMG 6450 - IT Project Management
- ISMG 6460 - Emerging Technologies
- ISMG 6830 - IT Governance and Service Management

Entrepreneurship and Innovation

Complete two ENTP 6000 or higher courses, excluding ENTP 6801 and ENTP 6802.

Complete one of the following courses:

- ENTP 6020 - Business Model Development & Planning
- ENTP 6021 - Corporate Entrepreneurship

Complete either one ENTP 6000 level course of your choice (excluding ENTP 6801 and 6802) or complete one MGMT 6000 level course of your choice.

Global Management

Required Courses:

- INTB 6000 - Introduction to International Business
- INTB 6020 - Cross-Cultural Management
- INTB 6040 - Managing Global Talent

OR

- MGMT 6040 - Managing Global Talent

Complete one of the following courses:

Any INTB 6000 level course of your choice

A travel study course (see advisor for details)

ENTP 6800 Opportunity Identification in International Entrepreneurship (Special Topics course)

Leadership

Select 4 of the following:

- MGMT 6803 - Visionary Leadership
 - MGMT 6804 - Bargaining and Negotiation
 - MGMT 6808 - Leadership Development
- May include up to 2 of the following courses:
- BANA 6650 - Project Management
 - ENTP 6848 - Leadership in New Ventures
 - INTB 6000 - Introduction to International Business
 - 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

Managing Human Resources

Prerequisites (completion of BUSN 6530 is in addition to the 30 hour MS MGMT)

- BUSN 6530 - Data Analysis for Managers
- MGMT 6380 - Managing People for Competitive Advantage Complete in core
Select 4 of the following:
- 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

- ACCT 6285 - Accounting and Finance for Sustainability
 - BANA 6730 - Supply Chain Management
 - BUSN 6830 - Business and the Natural Environment
 - BUSN 6870 - Global Climate Change
- OR**
- ENTP 6644 - Social Entrepreneurship in the Developing World
 - INTB 6870 - Global Climate Change
 - 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
*Independent Study/Internships by petition only
 - MGMT 6840 - Independent Study
 - MGMT 5939 - Internship
- OR**
- MKTG 5939 - Internship
 - MKTG 6830 - Marketing & Global Sustainability

Sports and Entertainment Management

Select 4 of the following:

- 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 (by petition only)

- MKTG 6820 - Sports & Entertainment Marketing

Strategic Management

Prerequisites (completion of prerequisites is in addition to the 30 hour MS MGMT):

- BUSN 6530 - Data Analysis for Managers
- BUSN 6550 - Analyzing and Interpreting Accounting Information
- BUSN 6620 - Applied Economics for Managers
- BUSN 6630 - Management of Operations

Required courses:

- BUSN 6560 - Marketing Dynamics in the 21st Century
- BUSN 6640 - Financial Management
- BUSN 6710 - Strategic Management
- MGMT 6803 - Visionary Leadership
- OR
- MGMT 6808 - Leadership Development

Free Electives: (6 hours)

Any course numbered 6000 or higher with prefix of ACCT, BANA, BUSN, CMDT, ENTP, FNCE, INTB, ISMG, MGMT, MKTG, MTAX, or RISK. Enterprise Technology Management (ETM) specialization students must take at least one MGMT, ENTP or INTB course as a free elective. ETM specialization students must also complete the required course of ISMG 6180 as a free elective.

Marketing MS

Program Director: Vicki Lane

Telephone: 303-315-8468

E-mail: Vicki.Lane@ucdenver.edu

The MS in Marketing degree is designed to provide the skill sets necessary for you to succeed in Marketing Management careers. These positions include upper level positions (e.g., Chief Marketing Officer), middle level positions (e.g., Brand Manager, Advertising Account Executive) and positions for those who interface with an organization's markets (e.g., Marketing Analysts). Your MS in Marketing degree from the University of Colorado Denver consists of 10 courses as follows:

- Common Core - 7 courses (21 semester hours)
- Specialization Option - 3 courses (9 semester hours)

Everyone completes the same 7 common core courses and then chooses their Specialization option that consists of 3 courses. For the Specialization, you can choose from three "Signature" Specializations, four Cross-Over Specializations, or customize your program with three courses of your choice.

Required Core Courses

- BUSN 6560 - Marketing Dynamics in the 21st Century
- MKTG 6010 - Marketing Strategy
- MKTG 6020 - Marketing Challenges at the Global Frontier
- MKTG 6040 - Domestic and Global Strategies and Analytics in Services Marketing
- MKTG 6050 - Market Research Analytics I
- MKTG 6060 - Consumer Intelligence--Psychology and Behavior
- MKTG 6200 - Marketing Intelligence and Metrics

Marketing Electives or Specialization: (9 hours)

Students may select any course numbered 6000 or higher with a **MKTG** prefix **OR** students may choose from the 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).

Advanced Market Analytics in a Big Data World

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>).

- MKTG 6090 - Customer Relationship Management
 - MKTG 6091 - Strategic Product Marketing
- Complete any one MKTG 6000 or higher course. (Recommend: MKTG 6801 -- Marketing Apprentice)

Brand Communication in the Digital Era

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 - Brand Identity & Marketing Communication Strategy
MKTG 6072 is also required.
Complete one MKTG 6000 or higher course. (Recommend: MKTG 6801, Marketing Apprentice)

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 Course:

- ENTP 6826 - International Entrepreneurship
Complete one of the following courses:
- INTB 6020 - Cross-Cultural Management
- MKTG 6830 - Marketing & Global Sustainability
Complete either one MKTG 6000 or higher course, one INTB 600 or higher course, or one ENTP 6000 or higher course with a global focus.

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 endeavors probability of success. If you aspire to be the next Bill Gates, this is a "must take" degree path for you.

Required:

- ENTP 6842 - New Concept Development
Complete one of the following courses:
- ENTP 6020 - Business Model Development & Planning
- ENTP 6021 - Corporate Entrepreneurship
- ENTP 6620 - New Venture Operations and Project Management
- ENTP 6644 - Social Entrepreneurship in the Developing World
- ENTP 6801 - Building Biotechnology
- ENTP 6822 - Legal and Ethical Issues of Entrepreneurship
- ENTP 6826 - International Entrepreneurship

Complete one MKTG 6000 or higher course.

Marketing and Global 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 one of the following courses:
 - BUSN 6830 - Business and the Natural Environment
 - ENTP 6642 - Exploring Social Entrepreneurship
 - INTB 6870 - Global Climate Change
 - MGMT 6821 - Managing for Sustainability
 - MGMT 6822 - Business Ethics and Corporate Social Responsibility
 - MGMT 6823 - The Sustainable Business Opportunity
- Complete one MKTG 6000 or higher course.

Marketing Intelligence and Strategy in the 21st Century

According to the Bureau of Labor, in 2015 the median salary for Marketing, Advertising, and Promotions Managers was \$124,850. This Specialization is designed to prepare students for these careers across various industries, whether services, products, global, or domestic. It provides a balance across strategy and intelligence. Skills, interests, and capabilities that are relevant include the following:

- Savvy in cultivating and maintaining business relationships
 - Capacity to communicate effectively
 - Interested in understanding how consumer psychology affects market success
 - Fascinated with popular culture and its creation of market opportunities
 - Captivated by the integration of branding with media, entertainment, and sports
 - Intrigued by the "Internet of things" and how this is changing the relationships between organizations and consumers
 - Focused on Creative approaches to business challenges
 - Ability to think "out-of-the-box" and generate new ideas to solve market problems
 - Knack for planning and organization
 - Skill in managing people and resources
- Complete the following required courses:
- MKTG 6070 - Brand Identity & Marketing Communication Strategy
 - MKTG 6090 - Customer Relationship Management
 - MKTG 6800 - Topics in Marketing

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 one 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
Complete one MKTG 6000 or higher course.

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 MSED

Return to: School of Education & Human Development

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

Information about faculty is available online at www.ucdenver.edu/education

The MEd in mathematics education program incorporates courses in mathematical content, pedagogy and research. This approach 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 core courses provide a sound basis in mathematics education, curriculum theory, teacher inquiry, appreciation of diversity and philosophical foundations.

MEd Core - 15 credits

- MTED 5030 - Theories Of Mathematics Learning
- MTED 5040 - Mathematics Teaching - Theory and Practice
- MTED 5050 - Critique Of Mathematics Education Research
- MTED 5060 - Developmental Pathways In Students' Mathematical Thinking

12 credits

Plus

- RSEM 5080 - Research In Schools
- Or
- RSEM 5120 - Introduction to Research Methods

3 credits

Mathematics Core - 15 Credits

Required Mathematics Core - Choose three courses in consultation with faculty advisor. Students may select 5000-level MATH, MCKE, MTED, or RSEM courses relevant to the grade-level with which the teacher works with approval from faculty advisor.

9 credits

Plus

Thesis Option: Required Course - SCED 5950 - Master's Thesis . 6 credits

Or

Non-Thesis Option: Elective Courses - Choose two courses relevant to the grade-level with which the teacher works in consultation with faculty advisor. **6 credits**

MEd Total: 30 Hours

MBA/MS in Bioengineering

The Business School and the Department of Bioengineering offer this degree option for students admitted into the Bioengineering MS program and the MBA program. This dual degree is an excellent opportunity for students who are planning a career in industry or as an entrepreneur. Bioengineering students including those who create medical devices, often launch their own venture upon graduation or thereafter. Business skills, especially in the area of marketing, legal environments, finance and operations are critical to enhance the probability of venture success. A dual degree also opens up new doors with regard to career choice, either in business or in one's core field.

Mechanical Engineering MEng

► Graduate School Policies and Procedures 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. There are also tracks in sports engineering and motorsports engineering.

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 Policies and Procedures 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 four options. In the first three options, the student may choose to specialize in thermal science, mechanics or biomechanics. The fourth 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 **biomechanics option** requires 31 credit hours to graduate. Please contact the mechanical engineering department or visit the biomechanics website for more information.
- 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 four options the student may select any mechanical engineering graduate course to complete the credit-hour requirements. The student may also take courses approved by an advisor outside of the mechanical engineering department.

Media Forensics Emphasis, Recording Arts MS

- Graduate School Policies and Procedures apply to this program.

Please click [here](#) to see general Music & Entertainment Industry Studies information.

Program Overview

The Master of Science in Recording Arts emphasis in media forensics (MSRA-MF) 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 related disciplines (media production, electrical engineering, forensics, computer science, 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 ability to work full-time while completing most of the program online with additional onsite study at the NCMF and its partner institutions. Classes are comprised of online self-guided lectures, interactive learning, discussion boards, reading responses and scheduled video conferencing. Onsite course work provides students with hands-on and practical experiences which augment and enrich the curriculum. Additionally, experiential learning activities include visits to regional crime labs and scientific conferences to understand the application of forensic media technology and laboratory procedures.

Courses 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 with input from 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 and federal levels.

Note: The application process and requirements for the Master of Science in Recording Arts emphasis in media forensics (MSRA-MF) differ from those listed for the recording arts (MSRA) program.

Curriculum

The MSRA-MF program 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.

MSRA Media Forensics Application

Admission to the MSRA-MF program is competitive. The MSRA-MF program accepts students in the **fall** only. Admission decisions are made by committee and are based on the entirety of the applicant's submitted materials. Admission to the program is contingent upon:

- Formal documentation of an earned bachelor's degree in a related field. (International students must document an equivalent.) Undergraduate degrees from other disciplines will be considered with proper support from application components.
- Successful completion of the Graduate Record Exam (GRE) General Test.
- For international students, submission of proof of English Language Proficiency. Please contact the Office of International Admissions for more information.
- Strength of application components as they relate to:
 - Scientific competency
 - Writing skills
 - Desire to work in the field of forensic media analysis
 - Strength of academic/professional background
 - Strength of references through letters of recommendation

Application Components

Required application components include:

- Graduate Application for Admission
- Application Fee
- Entrance Examinations: GRE (and TOEFL/IELTS or other evidence of English proficiency, if applicable)
- Official Transcripts
- Cover Letter
- Resume

- Three (3) Letters of Recommendation
- Two (2) Technical Writing Samples

Applications that do not include all of the requirements or that include partial components are considered incomplete and will not be reviewed.

International applicants are encouraged to visit the Office of International Admissions website for detailed information.

Application requirements are subject to change. Refer to the National Center for Media Forensics MSRA-MF program website for detailed information and updates regarding the application process and 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 Semester Hours

New Directions, Political Science MA

► Graduate School Policies and Procedures apply to this program.

Director: Gary Sears

Telephone: 303-556-5950

E-mail: gary.sears@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 30 graduate credit hours to complete the MA degree.

Core Courses

- PSCI 5014 - Seminar: American Politics
- PSCI 5085 - Comparative Governance: Environment and Society
- 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

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

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.

Certificate Program

The Center for New Directions MA program offers a certificate program as well, allowing students to focus their studies in a particular direction and to note that particular focus on their transcript. Students do not have to be seeking a full Master's degree to earn a certificate of completion through the certificate program.

For more information on the graduate certificate in Public Non-Profit and Community Leadership, [click here](#).

Political Science MA

- Graduate School Policies and Procedures 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 alternative "politics and public policy" track take most courses in weekend, off-campus locations. Students completing either track 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. 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 non-degree student. Non-degree 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 School Policies and Procedures. 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:

PSCI 5000 - 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. Any course in which a student receives a final grade lower than *B-* cannot be counted toward the total credits for the Master's degree. 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.

The Political Science graduate program offers two transcripted certificates, allowing students to focus their studies in a particular direction and to note that particular focus on their transcript.

For more information on the graduate certificate in Democracy and Social Movements, [click here](#).

For more information on the graduate certificate in Public, Non-Profit and Community Leadership, [click here](#).

Public Administration MPA

Introduction

The Master of Public Administration degree (MPA) provides graduate professional education for students interested in public service leadership positions and careers with public and nonprofit agencies and organizations. The program serves students new to public service as well as those already in the field who are interested in furthering their careers.

Program Director: Christine Martell, PhD

Faculty

Professors:

Lloyd Burton, PhD, University of California, Berkeley
Angela Gover, PhD, University of Maryland
Mary Guy, PhD, University of South Carolina
Callie Rennison, PhD, University of Houston
Richard Stillman, PhD, Syracuse University
Paul Teske, PhD, Princeton University

Associate Professors:

Tanya Heikkila, PhD University of Arizona
Christine Martell, PhD, Indiana University
Danielle Varda, PhD, University of Colorado Denver
Allan Wallis, PhD, City University Graduate Center
Chris Weible, PhD, University of California, Davis

Assistant Professors:

Todd Ely, PhD, New York University
Benoy Jacob, PhD, University of Illinois at Chicago
John Ronquillo, PhD, University of Georgia

Wirth Chair in Sustainable Development:

Mark Safty, JD, University of Montana

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

Dean Emerita:

Kathleen Beatty, PhD, Washington State University

Senior Instructor:

Wendy Bolyard, PhD, University of Central Florida

Pamela Medina, PhD, University of Central Florida

Robyn Mobbs, PhD, University of Colorado Denver

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 subscores of 20 or greater, 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.*

Preferred Application Deadline

Fall - March 1
Spring - October 15
Summer - March 1

*Final Deadline**

Fall - August 1
Spring - December 1
Summer - 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.

MCJ students may select two of the following for their first semester:

- CRJU 5001
- CRJU 5003
- 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. Taking courses as a nondegree student does not guarantee later admittance into the MCJ program. 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 MCJ student is 6 to 9 graduate credit hours per semester; full-time status for MCJ graduate students is 5 graduate credit hours per semester for financial aid determination. A student who is employed full-time is strongly advised not to carry more than 6 graduate semester hours in the MCJ program. Students who wish to carry a graduate course load above 9 hours per semester must consult their advisor and/or student service coordinator first.

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 1 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 the equivalent of at least one year of professional full-time experience in the field, following the awarding of their Bachelor degree. The purpose of the internship is to continue the linkage between theory and practice that is the philosophical basis of SPA. Internships generally involve substantive part-time work undertaken during the course of one semester. A maximum of three semester hours will be awarded for internship service. 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 seven 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
Or
- PUAD 5503 - Public Budgeting and Finance *Students in the Local Government Concentration must take PUAD 5503

- PUAD 5005 - The Policy Process and Democracy
- PUAD 5006 - Public Service Leadership
- PUAD 5008 - Evidence-Based Decision-Making

3. Electives

All MPA students must complete 12 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 12 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 5633 - Seminar in Natural Resource and Environmental Health Law
- Electives approved by advisor (2) (6 semester hours)

Total: 12 Hours

Local Government Concentration

Students take

- PUAD 5503 - Public Budgeting and Finance
- and at least two of the three 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 (1-2) (3-6 semester hours)

Total: 12 Hours

Gender-Based Violence Concentration

Students take four specified courses.

- PUAD 5910 - Nature and Scope of Interpersonal Violence
- PUAD 5920 - The Psychology of Interpersonal Violence
- PUAD 5930 - Interpersonal Violence Law and Policy
- PUAD 5940 - Interpersonal Violence Leadership, Advocacy, and Social Change

Total: 12 Hours

Emergency Management and Homeland Security Concentration

Students must take two out of the three courses listed below as well as electives approved by the advisor. We recommend that students take all three courses if possible.

- GEOG 5230 - Hazard Mitigation and Vulnerability Assessment
 - PUAD 5650 - Public Policies for Homeland Security and Disasters
 - PUAD 5450 - Law of All-Hazards Management
- Electives approved by advisor (1 or 2) (3-6 semester hours)

Total: 12 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 (6 semester hours)

Total: 12 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 accelerated option is priced at a flat fee, regardless of in-state or out-of-state student status, 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 August. 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.

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, and other concentrations are being added annually. As well, a variety of other electives leading to a general MPA degree are available online. Students in the executive option may also choose to do all SPA course work online.

Gender-Based Violence Cohort

The first graduate program of its kind in the nation, the University of Colorado Denver's MPA concentration in gender-based violence focuses on the management and policies surrounding gender-based 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 gender-based violence concentration courses is the same for in-state and out-of-state students. Nonresident students pursuing the MPA with a concentration in gender-based violence may also qualify for reduced tuition through the Western Regional Graduate Program which covers 14 western states.

Public History, MA in History

► Graduate School Policies and Procedures 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 requires a concentration, in either 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

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 this 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 semester hours in their major field or minor field)

Secondary Teacher Licensure

Students interested in secondary teacher licensure should consult with the School of Education and Human Development. See the Urban Teacher Education Program for information.

History MA

Recording Arts, Master of Science (MSRA)

- Graduate School Policies and Procedures apply to this program.

Please click [here](#) to see general Music & Entertainment Industry Studies information.

Program Overview

Recording arts is a field that deals with all aspects of recorded music and sound, including mixing, mastering, production, MIDI sequencing, live sound reinforcement, and post-production for film and video. The program

refines students' skills in sound recording, aesthetics, multi-track recording, analog and digital signal processing, automated mixing, synchronization, stereo and surround imaging, mastering and post-production.

The Master of Science in Recording Arts (MSRA) has the only pedagogy track in the nation. Pedagogy is synonymous with teaching, and the MSRA includes a survey of available resources for audio education. The curriculum offers an interdisciplinary approach, which can include physics, acoustics, engineering, music recording, psychoacoustics, multimedia, theatre and film/video. The program emphasizes design and development of new methods and materials.

This graduate degree is designed to:

- prepare students for audio careers in mass communications, education, music, multimedia and the entertainment industries.
- enhance advancement of professionals in their careers.
- prepare the music educators of the future.

In their final semester, students will create and defend a thesis or a portfolio.

- *Thesis* -- Written research
- *Portfolio* -- Research in conjunction with a recorded work. This could be a music recording, audio for video, or other media.

Graduate courses comprising the core of the program advance students' artistic, pedagogical, technical and problem-solving abilities. Elective courses allow each student to develop additional skills and knowledge in related areas, including surround sound, acoustics, studio design, digital signal processing and others.

The Department of Music & Entertainment Industry Studies encourages students from allied disciplines (music, physics, engineering, etc.) to apply. Students are not required to have their bachelor's in recording arts; the bachelor's degree can be from any discipline. Applicants can qualify for the MSRA program 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 MSRA program differ from those listed for the media forensics emphasis.

MSRA Application Components

Admission to the MSRA program is competitive. Applications are accepted for fall-only admission to the cohort. Admission decisions are made by committee and are based on the entirety of the applicant's submitted materials. Incomplete applications are not considered, and application requirements may vary between domestic and international students.

- Graduate Application for Admission
- In-State Tuition Classification Application (if applicable)
- Application Fee
- Entrance Examinations: GRE (and TOEFL/IELTS or other evidence of English proficiency, if applicable)
- Official Transcripts
- Three (3) Letters of Recommendation
- Application Essay
- Resume
- Portfolio

Applications that do not include all of the requirements or that include partial components are considered incomplete and will not be reviewed.

International applicants are encouraged to visit the Office of International Admissions website for detailed information.

Refer to the MSRA website for deadlines, detailed information and updates regarding the application process and requirements.

Required Courses

- MSRA 5000 - Introduction to Graduate Studies
- MSRA 5001 - MSRA Research Seminar
- 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: 19 Semester Hours

Electives

Choose **15 semester hours** from the list below. Students may take courses not listed here upon approval of the faculty or academic advisor.

- MSRA 5500 - Topics in Professional Audio
- MSRA 5505 - Audio Post Production I
- MSRA 5530 - Live Sound Reinforcement
- MSRA 5560 - Mastering & Advanced Digital Audio
- MSRA 5575 - Graduate Surround Sound
- MSRA 5605 - Audio Post Production II
- MSRA 5820 - Digital Music Techniques
- MSRA 5840 - Independent Study for MSRA

Program Total: 34 Semester Hours

Students should plan to graduate in a minimum of four 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 MSRA website for additional information.

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 in addition to the following:

- evidence of a bachelor's degree
- two official copies of transcripts from all community colleges, colleges, and universities attended
- 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 MSS degree
- a typed 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).

For further information on non-degree graduate student status, see the Information for Graduate Students section of this catalog. In the case of CU Denver graduate students transferring to the MSS program, previous course work may be accepted as appropriate to the MSS plan of study.

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 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 focus areas from which students can select: Community Health Science, Ethnic Studies, International Studies, Social Justice, Society and Environment, and Women's and Gender Studies.

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
This course title has changed to Foundations and Theories of Interdisciplinary Social Sciences (Offered fall only)
- SSCI 5023 - Research Perspectives in Social Science
(Offered spring only)
Students should take this course only after they have completed 21-24 credit hours, which will be toward the end of the program, when students are ready to write a proposal for their thesis or project.

Total: 9 Hours

Electives

In addition to the 9 credits of required coursework, 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 coursework 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). 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

Oral Exam

An oral exam defending the project or thesis before a committee of three faculty members must be passed in order to graduate.

Degree Total: 36 Hours

Sociology MA

► Graduate School Policies and Procedures apply to this program

Program Requirements

The MA program in Sociology provides a coherent, progressive educational experience that prepares students for either immediate entry to a master's level career or continued study in a PhD program. Students choose from two options for their Comprehensive Paper that completes the master's degree: either a 6-credit thesis, or a 3-credit applied experience plus a 3-credit paper. The program also offers 3 concentration areas (Crime, Law & Deviance; Health & Society; Family, Social Services & Community) for students seeking specialization in high-demand career areas.

Required Courses

Tier 1 Knowledge

This includes 5 courses required for all graduate students. SOCY 5000 must be taken in the first fall semester. SOCY 5024 must be taken before SOCY 5183 and SOCY 5193. Students must earn a *B* or better in all core courses.

- SOCY 5000 - Professional Seminar: Sociological Inquiry (3 credits)
- SOCY 5016 - Social Theory (3 credits)
- SOCY 5024 - Seminar: Research Methods I (3 credits)
- SOCY 5183 - Seminar: Quantitative Data Analysis (3 credits)
- SOCY 5193 - Seminar: Qualitative Data Analysis (3 credits)

Tier 1 total: 15 Credits

Tier 2 Knowledge Applied to Substantive Areas

- 12 elective credits (students choosing a concentration must apply 9 of these credits to that area). Credit requirements are fulfilled only for those courses earning a minimum grade of B-.

Tier 2 total: 12 Credits

Tier 3 Comprehensive Paper

- SOCY 5955 - Master's Thesis (6 credits)
OR
- SOCY 5939 - Internship (3 credits)
OR
- SOCY 5840 - Independent Study: SOCY
AND
- SOCY 5964 - Master's Report (3 credits)

Tier 3 total: 6 Credits

Plans of Study

Students must choose **one** of the following Comprehensive Paper options:

Thesis Option Requirements

Core course requirements 15 Credits

Four substantive area courses 12 Credits

Master's Thesis 6 Credits

- SOCY 5955 - Master's Thesis

Thesis Option Total: 33 Credits

Applied Experience + Paper Option Requirements

Core course requirements 15 Credits

Four substantive area courses	12 Credits
Applied Experience (internship or independent study)	3 Credits
Master's Paper	3 Credits

- SOCY 5939 - Internship
- SOCY 5840 - Independent Study: SOCY
- SOCY 5964 - Master's Report

Applied Experience + Paper Option Total: 33 Credits

Substantive Area Requirements (12 credits for both options)

Students can take an unlimited number of sociology graduate (5000-level) seminars to fulfill their 12 elective credits requirement, or a combination of the following:

- Independent study: maximum 6 semester hours
- Graduate level courses in other departments: maximum 6 semester hours
- Internship: maximum 3 semester hours

Students pursuing one of the concentration areas should work closely with the Graduate Program Director or their Culminating Paper Advisor to verify that 9 credits of selected courses qualify for the chosen concentration area.

For further information about the Department of Sociology or the MA program, visit the Sociology website.

Spanish MA

- Graduate School Policies and Procedures apply to this program

The faculty of the CU Denver Modern Languages Department offer 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 3.0, 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):

- **3 hours** SPAN 5000 - Introduction to Graduate Studies in Spanish
- **24 hours** Literature/Culture and Linguistics coursework, including at least 6 semester hours in Literature/Culture and 6 in Linguistics. Students may include up to two courses (3-6 credits) from outside the Modern Languages Department, as approved by their advisor.
- **6 hours** SPAN 5950 - Master's Thesis preparation and writing

Thesis Option Total: 33 Hours

Nonthesis option (course work):

- **3 hours** SPAN 5000 - Introduction to Graduate Studies in Spanish
- **30 hours** Literature/Culture and Linguistics coursework, including at least 6 hours in Literature/Culture and 6 in Linguistics. Students may include up to two courses (3-6 credits) from outside the Modern Languages Department, as approved by their advisor.

Nonthesis Option Total: 33 Hours

Notes:

1. No more than one undergraduate course (3 semester hours) may be applied toward the MA degree, and that course must have been taken at the 4000 level or above and 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.

Statistics MS

Program Requirements

Students must present 30 hours of course work (which are broken into 4 components as detailed below) and maintain a 3.0 GPA or above for the M.S. degree. At least 24 of these hours must consist of graduate level (numbered 5000 or higher) courses with the MATH prefix. The remaining 6 hours must be either MATH 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 (subject to approval); 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 M.S. degree in Statistics. Additionally, the following MATH courses will NOT count toward a graduate degree: MATH 5010, 5012-5015, 5017, 5198, and 5830.

Following completion of course work, all students must complete a written project and pass a final oral exam. The project is developed as a student-centered independent research component within MATH 5960 unless the student has chosen the thesis option. For students choosing the thesis option, 4 to 6 hours (of the 30 required hours) may be devoted to the writing of a thesis through MATH 5950. By graduate school rules, Master's students, whether enrolled full-time or part-time, must complete all degree requirements within 7 years of matriculation.

Course Requirements for the M.S. Degree in Statistics

The M.S. degree in Statistics consists of 4 components: 1) core courses, 2) statistics electives, 3) other electives, and 4) MATH5960 (Master's project) or MATH5950 (Master's thesis).

Core Courses: The core courses include:

- MATH 5310 - Probability
- MATH 5320 - Introduction to Mathematical Statistics
- MATH 5387 - Applied Regression Analysis
- MATH 6330 - Workshop in Statistical Consulting

Statistics Electives: Nine hours of statistics electives are required. A running list is given below. Additional courses can be substituted given prior approval by the student's advisor and the Director of the Program in Statistics.

- MATH 5394 - Experimental Designs
- MATH 6376 - Statistical Computing
- MATH 6380 - Stochastic Processes
- MATH 6384 - Spatial and Functional Data Analysis
- MATH 6388 - Advanced Statistical Methods for Research
- MATH 6393 - Introduction to Bayesian Statistics
- MATH 7384 - Mathematical Probability
- MATH 7826 - Topics in Probability and Statistics

- Additional courses given prior approval by the student's advisor and the Director of the Program in Statistics
- Other Electives:* Six hours of other electives are required. Any MATH prefix course that can be used for an M.S. or Ph.D. degree in Applied Mathematics can be used as an Other Elective. While these courses could be additional statistics-focused courses, the added flexibility allows students to direct their coursework into other areas of mathematics and/or science. The following courses will not count toward the M.S. in Statistics: MATH 5010, MATH 5012-5015, MATH 5017, MATH 5198, and MATH 5830.

Taxation MS

Program Director: Eric Zinn

Telephone: 303-315-8482

E-mail: Eric.Zinn@ucdenver.edu

The MS in Taxation degree from CU Denver gives you the skills and knowledge you need to be successful in a career in this dynamic and changing industry. Tax professionals are constantly in demand, and the long-term prospects make this a particularly intriguing field.

There is an increasing demand for tax professionals-over 20% job growth in the next decade. The average starting salary in this field is \$60,000. To meet this industry demand the CU Denver Business School has created an MS in Taxation degree to give students the skills and knowledge needed to succeed in this dynamic career field.

The world of tax is constantly changing. Globalization and increased competition, both domestically and internationally, has created a situation where tax law is helping to shape social, political, economic, and business policies and agendas. CU Denver is the only public university in Colorado to offer this specialized degree, and one of only 15 schools nationwide.

Prerequisite (3 semester hours or waiver with advisor approval)

- ACCT 6140 - Tax Planning for Managers
OR
- ACCT 4410 - Income Tax Accounting
ACCT 4410 or ACCT 6140 or an equivalent course taken at another accredited domestic institution is a prerequisite for all MS in Taxation courses.

Core Requirements (12 semester hours)

- MTAX 6400 - Taxation of C Corporations and Shareholders
- MTAX 6440 - Tax Practice and Procedures
- MTAX 6450 - Research Problems and Business Communications in Taxation
- MTAX 6480 - Partnership Taxation

Electives (18 semester hours)

Choose six of the following courses:

- MTAX 6410 - Advanced Tax For Individuals
- MTAX 6420 - Estate and Gift Taxes

- MTAX 6430 - International Taxation
 - MTAX 6455 - Tax Aspects Relating to Exempt Organizations
 - MTAX 6460 - Advance Topics in Taxation
 - MTAX 6475 - Accounting for Income Taxes
 - MTAX 6482 - Advanced Partnership Taxation
 - MTAX 6500 - Advanced Corporate Taxation
- Potential future course offerings:
- State and Local Taxation
 - Taxation of Oil, Gas, and other Mineral Rights
 - Taxation of S Corporations
 - Taxation of Property Transactions
 - Taxation of Consolidated Groups
 - Methods of Tax Accounting

Urban and Regional Planning MURP

The Master of Urban and Regional Planning Program at the University of Colorado Denver has evolved to become one of the strongest, most unique planning programs in the United States. We offer a very hands-on, real-world oriented program that uses Colorado as our classroom and engages students with top planning/design professionals and the community.

We believe that successful city building requires expertise, breadth, interdisciplinary understanding, and creativity. Our program looks beyond traditional professional silos and instead centers on issues at the forefront of planning practice. Our three Initiatives-Healthy Communities, Urban Revitalization, and Regional Sustainability-form the basis of our research, instruction, and community outreach.

We encourage all students to follow their passion and develop expertise in the areas that matter most to them. Thus, we offer a unique, self-directed curriculum that allows students to understand the breadth of the planning field while gaining the technical expertise demanded by the profession.

Our world-class faculty includes some of the most respected researchers in the planning field, and our award-winning planning practitioners bring a wealth of experience to the classroom. All of our faculty make teaching a top priority.

Our presence in a College of Architecture and Planning ensures that our approach to planning education has a strong connection to design, and our location in the heart of downtown Denver presents our students with endless opportunities to learn what it takes to create amazing cities.

Curriculum

Program Requirements

Completing the MURP degree requires 54 semester hours, comprised of 36 semester hours of required "core" courses and 18 semester hours of elective courses. (Six of the 36 required semester 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 semester 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.

Core Courses

The MURP Program curriculum includes 10 required "core" courses totaling 36 semester hours. These courses provide students with a comprehensive survey of the planning field and the foundational knowledge, skills, and values important to the profession. The core courses have been carefully designed to fully comply with the Planning Accreditation Board's required educational outcomes. The list below shows the core courses and the program year in which the course is intended to be taken.

Year 1 - Fall

- URPL 5000 - Planning History and Theory
- URPL 5010 - Planning Methods
- URPL 5020 - Planning Law and Institutions
- URPL 5030 - The Planning Profession

12 semester hours

Year 1-Spring

- URPL 5040 - Urban Sustainability
- URPL 5050 - Urban Development
- URPL 5060 - Planning Workshop

12 semester hours

Year 2

- URPL 6000 - Planning Project Studio
Student's choice of ONE of the following 6-credit courses:
- URPL 6900 - Planning Capstone
- OR -
- URPL 6920 - Planning Thesis A
and
- URPL 6925 - Planning Thesis B

12 semester hours

Elective Courses

Beyond the core curriculum, MURP students follow a self-directed educational path. Students may choose any combination from our broad offering of elective courses, whether aligned with one of our three Initiatives, a traditional or unique specialization, or a generalist survey of the planning field. We offer MURP students a broad selection of elective courses within the program. In addition, 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.

Internships

Internships are an important way the MURP program helps students achieve hands-on, experiential learning. The difference between an internship and a part-time job is that an internship is specifically intended to be a learning experience. While getting academic credit for an internship is not required, it is highly recommended. Students earn three elective credits for enrolling in URPL 6805 but, more importantly, the coursework will enable students to maximize the personal and professional development their internship affords.

Planning Workshop/Project Studio

Planning Workshop (URPL 5060) and Planning Project Studio (URPL 6000) are the two studio core courses. These courses are a key part of the hands-on, real-world focus of the MURP program.

Planning Workshop is the introductory studio for MURP students. It provides students an opportunity to address actual planning problems, issues, and processes; apply previously acquired knowledge and skills; and develop new knowledge and practical skills in an applied context.

Students will develop basic competence in accessing existing information, generating new information, and performing planning analysis and synthesis. Students will also learn to enhance their graphic, written, and oral communication capabilities. Through the Planning Workshop experience, students will develop an understanding of the relationship between planning theory and practice, as well as gain the ability to formulate compelling planning arguments in applied settings.

Students will also receive introductory instruction in Trimble SketchUp, which complements the introductory instruction in Geographic Information Systems (ArcView GIS) and Adobe Creative Suite (Photoshop, Illustrator, InDesign) students receive in The Planning Profession course. The integration and use of all of these common planning technology applications is a critical component of the Planning Workshop experience.

Planning Project Studio is the MURP program's advanced studio course. This studio requires students to work together as a "planning consultant team" to complete a single planning project or study from beginning to end for a real-world client. It is expected that students enrolled in Planning Project Studio will have already gained the fundamental planning knowledge, skills, and values from their experience in Planning Workshop and other MURP courses. Consequently, the emphasis in Planning Project Studio is on putting everything together into a complete real-world planning project.

The studio will emulate the typical planning consultant/client experience, including: refining the project scope and schedule with the client; establishing guiding principles and expected outcomes; conducting case studies and existing plans background research; gathering and analyzing existing conditions data; formulating alternative plan concepts; assessing alternative concepts through specific criteria; identifying and refining the preferred alternative; and preparing and presenting the final plan deliverables to the client. Emphasis is also placed on professionalism, project management, team-building and collaboration, client management, public involvement, and other aspects of the real-world planning consultant realm.

Each Planning Project Studio course section will focus on a project generally associated with one of the MURP program's three initiatives (Healthy Communities, Urban Revitalization, and Regional Sustainability). Typically three to five sections of Planning Project Studio are offered each academic year, thereby ensuring that students will have a chance to enroll in a Planning Project Studio section that is aligned with an initiative of interest to them.

However, as each studio section is limited in size, there is no guarantee students will be able to enroll in their preferred section. A balloting process will be used when necessary.

Planning Capstone/Planning Thesis

The culminating component of the MURP curriculum is the Planning Capstone/Planning Thesis requirement, which challenges students to utilize to the fullest extent the planning knowledge, skills, and values gained during their MURP program experience. Students must choose which option to select-Planning Capstone or Planning Thesis-based on their career goals, personal interests and aptitudes, and the advice of their faculty advisor.

Planning Capstone is a six-credit, project-oriented, one-semester course that results in a substantial deliverable upon completion. The Capstone option is best suited for students who wish to pursue a career as a professional planner after graduation. Within the Planning Capstone option are two alternatives: Independent Project and Small-Group Project.

If a student chooses the Planning Capstone > Independent Project path, he or she will work individually to complete a significant planning project or study for a real-world client. If a student chooses the Planning Capstone > Small-Group Project path, he or she must team up with one or two other students-forming a project team of no more than three people-to complete a significant planning project or study for a real-world client. However, each student must be individually responsible for a clearly defined component of the project as each student will be graded independently for his or her work.

During the semester before enrolling in Planning Capstone, students will be required to: (a.) determine if they will be working independently or as part of a small group, (b.) identify their Capstone client and project topic, and (c.) begin preparing a detailed project prospectus (work plan, schedule, methodology, and deliverables). Also during the semester before Capstone, students must attend a mandatory Capstone Orientation to receive instruction and guidance on project planning and management. Students must have a completed and approved project prospectus by the second week of their Capstone semester. Students may identify their own Planning Capstone client and project topic or they may select from a list of Capstone clients/projects that have been pre-arranged and approved by the MURP faculty.

During the Planning Capstone semester, students complete their project work while maintaining regular contact with their Capstone faculty advisor and client to ensure sufficient progress and work quality, as well as periodically meeting with other Capstone students to discuss common issues and challenges, share experiences, and receive continued instruction and guidance from the Capstone faculty on project management and methodologies. The Planning Capstone semester concludes with the submission of all deliverables and a formal presentation to the client and Capstone faculty.

For more information about the Planning Capstone option, please visit the Capstone webpage.

Planning Thesis comprises a pair of three-credit courses (A and B) taken over two semesters that together constitute a six-credit effort. The thesis option is most appropriate for outstanding MURP students who are considering pursuing a Ph.D. or a research-oriented career after graduation.

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.

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)

Urban Design MUD

► Graduate School Rules apply to this program

Program Director: Ann Komara

Program Advisor: Patricia McKissock

Telephone: 303-315-1000

Email: ann.komara@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 required Travel Studio held each summer, when students experience other urban locations and study urban issues in dynamic, context-based locations. Locations range from international cities, recently Copenhagen and Shanghai, to North American cities such as Washington, D.C.

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 studios, 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 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 in a travel studio. Most recently they have studied the dense urban core of Copenhagen, Denmark, in partnership with faculty affiliated with the Danish Institute for Study Abroad (DIS).

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. Each year, we bring in renowned practitioners to teach courses, give lectures, and serve as jurors in urban design studios. 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 are required to select two electives from a multidisciplinary array offered in the College of Architecture and Planning. Importantly, our CAP Internship Program aims to place qualified students into an internship in one of the region's top design firms. Participating firms have included: Civitas, Design Workshop, Norris Design, RNL Design, AECOM, 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 program accepts applications for fall semester entry. The program does not encourage entry to the program in any spring semester due to the specific sequencing of the classes. The priority deadline is February 15; final deadline is March 15.

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
- Your statement of purpose (which should include your educational and professional goals)
- Résumé (which describes your educational and professional background)
- A portfolio that includes examples of student and/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 statement indicating whether you would like to participate in the MUD Internship Program
- English language proficiency (TOEFL) scores are required for international applicants when English is not their first language. Please see International Admissions website for current minimum score requirements.

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 36-semester-hour plan that includes two open 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 - Design Studio I
- URBN 6611 - Design Studio II
- URBN 6612 - International Design Studio
- URBN 6641 - Design Process
- URBN 6642 - Design Policy
- URBN 6651 - Design Practice
- URBN 6652 - Design Seminar
(topics vary - a prerequisite for URBN 6612)

Total: 36 hours

Dual Degree Programs

5 Year Mathematics BS/Statistics MS

Introduction

This is a unique program where a student can obtain both a B.S. in Mathematics and M.S. in Statistics in five years through a specialized course sequence. The program requires 12 fewer credits than if both degrees were earned separately.

Program Delivery

- This is an on-campus program.

Declaring This Major

- Work with your advisor to declare this major.

General Requirements

To earn a bachelor's degree, students must satisfy all requirements in each of the three areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Liberal Arts & Sciences Graduation Requirements

Program Requirements for Mathematics BS

1. Students must complete a total of at least 36 upper-division MATH semester hours (typically 12 courses).
2. Students must complete at least 15 upper-division semester hours in MATH in residence at CU Denver.
3. A grade C- or better is needed in each class counted toward the MATH major.
4. A minimum GPA of 2.25 is required for all MATH courses applying to MATH requirements.

Take **all** of the following Mathematics courses:

- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 2421 - Calculus III
- MATH 3000 - Introduction to Abstract Mathematics
- MATH 3191 - Applied Linear Algebra
- MATH 3382 - Statistical Theory
- MATH 4310 - Introduction to Real Analysis I
- MATH 5310 - Probability
- MATH 5320 - Introduction to Mathematical Statistics
- MATH 5387 - Applied Regression Analysis

- MATH 6330 - Workshop in Statistical Consulting

Take **one** of the following courses:

- MATH 3250 - Problem Solving Tools
- MATH 4650 - Numerical Analysis I

Take **one** of the following courses:

- 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

Take **two** additional MATH classes (and at least 6 credits) above 3000 excluding 3040, 3511, 4012, 4013, 4014, 4015. (Note: Students looking to use Math 3195 to satisfy this requirement should consult their advisor).

Program Requirements for Statistics MS

1. Students must apply for admission into the 5-year B.S./M.S. program to the Director of the Program in Statistics after completing MATH 1401, 2411, 2421, 3000, 3191, and 3382.
2. Students must present 30 hours of course work (which are broken into 4 components as detailed below) and maintain a 3.0 GPA or above for the M.S. degree.
3. At least 24 of these hours must consist of graduate level (numbered 5000 or higher) courses with the MATH prefix.
4. The remaining 6 hours must be either MATH courses numbered 5000 or above or approved courses outside the department numbered 4000 or above.
5. Students must complete a written project and pass a final oral exam.

Note that the MATH 5310, MATH 5320, MATH 5387, and MATH 6330 courses used for the B.S. portion of the degree apply to the 30 hours of course work and satisfy the core requirement discussed below.

Up to 9 semester hours of prior course work may be transferred in (subject to approval); 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 M.S. degree in Statistics. Additionally, the following MATH courses will NOT count toward a graduate degree: MATH 5010, 5012-5015, 5017, 5198, and 5830.

Following completion of course work, all students must complete a written project and pass a final oral exam. The project is developed as a student-centered independent research component within MATH 5960 unless the student has chosen the thesis option. For students choosing the thesis option, 4 to 6 hours (of the 30 required hours) may be devoted to the writing of a thesis through MATH 5950. By graduate school rules, Master's students, whether enrolled full-time or part-time, must complete all degree requirements within 7 years of matriculating into the graduate program.

The M.S. degree in Statistics consists of 4 components: 1) core courses, 2) statistics electives, 3) other electives, and 4) MATH5960 (Master's project) or MATH5950 (Master's thesis).

The **4 core courses** include:

- MATH 5310 - Probability

- MATH 5320 - Introduction to Mathematical Statistics
 - MATH 5387 - Applied Regression Analysis
 - MATH 6330 - Workshop in Statistical Consulting
- and are satisfied during the completion of the B.S. portion of the degree.

Students must take **at least three** additional *statistics electives* courses from the list below:

- MATH 5394 - Experimental Designs
- MATH 6376 - Statistical Computing
- MATH 6380 - Stochastic Processes
- MATH 6384 - Spatial and Functional Data Analysis
- MATH 6388 - Advanced Statistical Methods for Research
- MATH 6393 - Introduction to Bayesian Statistics
- MATH 7384 - Mathematical Probability
- MATH 7826 - Topics in Probability and Statistics
- Additional courses given prior approval by the student's advisor and the Director of the Program in Statistics

Students must take **two Other Electives**: Any MATH prefix course that can be used for an M.S. or Ph.D. degree in Applied Mathematics can be used as another Elective. While these courses could be additional statistics-focused courses, the added flexibility allows students to direct their coursework into other areas of mathematics and/or science. The following courses will not count toward the M.S. in Statistics: MATH 5000-5010, MATH 5012-5015, MATH 5017, MATH 5198, MATH 5250 and MATH 5830.

Students must take either MATH 5950 or MATH 5960 as part of completing their written project.

Bioengineering Dual MS-MBA

- Graduate School Policies and Procedures apply to this program.

Master of Science (MS) - Master of Business Administration (MBA) Dual Degree Program

We offer a dual MS-MBA in partnership with the CU Denver Business School. Please contact either program for more information and advising. Students registered in other MS programs in the University of Colorado system may be able to combine the two degrees; please contact us at bioengineering@ucdenver.edu for more information.

Bioengineering MD-MS

We offer an MD-MS in bioengineering in partnership with the University of Colorado School of Medicine. This dual degree option is available to current CU medical students only. Prospective students should contact the department at bioengineering@ucdenver.edu as early in their medical school training program as possible for more information and advising.

Bioengineering MD-PhD

- Graduate School Policies and Procedures apply to this 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 by participating in the BS/MS program, using the following guidelines:

- The student must apply and be accepted for participation in the BS/MS program prior to completion of the BS degree in consultation with both the undergraduate and graduate advisors.
- Up to 12 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.
- In addition, 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* (3.0) or better for each course.
- The student must apply for and be admitted to the MS program in chemistry beginning the semester immediately following completion of the BS degree in chemistry at the Downtown Campus.

The BS/MS 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 MS program through the BS/MS program option must fulfill all of the requirements of the Plan I or Plan II MS degree 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 Criminal Justice: An Overview, 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 should apply after earning 75 credit hours of undergraduate coursework and before earning 90 credit hours. 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
 - Completed or scheduled 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. Completed or scheduled 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 15 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/MA

Economics MA/Applied Mathematics MS Dual Degree, with a focus in Applied Statistics

► Graduate School Policies and Procedures apply to this program.

Admissions Advisor: Brian Duncan (brian.duncan@ucdenver.edu)

Schedule Advisor: Hani Mansour (Hani.Mansour@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.

A "dual" degree means that students who complete the program earn two master's degrees: MA in economics and MS in applied mathematics. Students interested in completing the dual degree in economics and applied mathematics 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. Students may apply to both programs at the same time or apply to the economics program first, and then to the applied math program after 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 Math Department.

[Click here for admissions requirements for the MA program in Economics](#)

[Click here for admissions requirements for the MS program in Applied Mathematics](#)

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 Applied Mathematics will make a student highly employable in the job market and provide them an edge in applying for elite PhD programs.

Degree Requirements

The requirements for the dual degree in economics and applied mathematics include completing 21 credit hours in ECON and 21 credit hours in MATH (42 total credit hours).

Students are expected to meet all course prerequisites. ECON 5803 – Mathematical Economics is a prerequisite for ECON 5073 - Microeconomic Theory and ECON 5813 - Econometrics I. This prerequisite requirement is waived for students who are currently admitted to the MS Applied Mathematics program.

A grade of B- or better is required in all courses, with a cumulative grade point average of B (3.0) or above. No course may be taken more than twice.

Core Courses

Take all of the following courses:

- 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
- ECON 6073 - Research Seminar
- MATH 5070 - Applied Analysis
- MATH 5310 - Probability
- MATH 5320 - Introduction to Mathematical Statistics
- MATH 5718 - Applied Linear Algebra

- MATH 6330 - Workshop in Statistical Consulting
Take one of the following courses:
 - MATH 5394 - Experimental Designs
 - MATH 6376 - Statistical Computing
 - MATH 6380 - Stochastic Processes
 - MATH 6384 - Spatial and Functional Data Analysis
 - MATH 6388 - Advanced Statistical Methods for Research
 - MATH 6393 - Introduction to Bayesian Statistics
 - MATH 7384 - Mathematical Probability
 - MATH 7826 - Topics in Probability and Statistics
 - An additional course given prior approval by the student's advisor and the Director of the Program in Statistics.
- Total: 36 hours**

Electives

One 5000 or higher course with a MATH prefix (**3 semester hours**), except MATH 5000-5010, MATH 5017, MATH 5198, and MATH 5250. Contact a graduate advisor in the Math Department for information about Math course requirements.

One 5000 or higher course with an ECON prefix (**3 semester hours**).

Contact a graduate advisor in the Economics Department for information about Econ course requirements.

Total: 6 Hours

Dual Degree Total: 42 Hours

Economics MA/Finance MS Dual Degree

► Graduate School Policies and Procedures apply to this program

Admissions Advisor: Brian Duncan (brian.duncan@ucdenver.edu)

Schedule Advisor: Hani Mansour (hani.mansour@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.

A "dual" degree means that students who complete the program earn two master's degrees: MA in economics and MS in finance. 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. Students may apply to both programs at the same time or apply to the economics program first, and then to the finance program after 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 requirements for the MA program in Economics](#)

[Click here for admissions requirements for the MS program in Finance and Risk Management](#)

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.

Degree Requirements

The requirements for the dual degree in economics and finance include completing 21 credit hours in ECON and 21 credit hours in FNCE (42 total credit hours)

Students are expected to meet all course prerequisites. A grade of B- or better is required in all courses, with a cumulative grade point average of B (3.0) or above. No course may be taken more than twice.

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
- FNCE 6380 - Futures and Options
- **-OR-**
- FNCE 6382 - Survey of Financial Derivatives
- **-OR-**
- FNCE 6410 - Real Options and Decisions Under Uncertainty

Total: 30 Hours

Electives

Three 6000 or higher courses with a FNCE prefix (9 semester hours), except FNCE 6290 - Quantitative Methods. Contact a graduate advisor in the Business School for information about Finance course requirements.

One 5000 or higher course with an ECON prefix (3 semester hours). Students are strongly encouraged to take 3 elective hours of ECON 6053/6054 or to meet with an economics graduate advisor to discuss how to otherwise prepare for ECON 6073 - Research Seminar. Contact a graduate advisor in the Economics Department for information about ECON course requirements.

Total: 12 Hours

Dual Degree Total: 42 Hours

Economics MA/Public Administration MPA Dual Degree

► Graduate School Policies and Procedures apply to this program

Admissions Advisor: Brian Duncan (brian.duncan@ucdenver.edu)

Schedule Advisor: Hani Mansour (Hani.Mansour@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 dialog for either to be fully effective.

A "dual" degree means that students who complete the program earn two master's degrees: MA in economics and MPA in public administration. 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. Students may apply to both programs at the same time or apply to the economics program first, and then to the public administration program after 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 School of Public Affairs.

[Click here](#) or admissions requirements for the MA program in Economics

[Click here](#) for admissions requirements for the MPA program in Public Administration

Degree Requirements

The requirements for the dual degree in economics and public administration include completing 21 credit hours in ECON and 27 credit hours in PUAD (48 total credit hours).

Students are expected to meet all course prerequisites. A grade of B- or better is required in all courses, with a cumulative grade point average of B (3.0) or above. No course may be taken more than twice.

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 - Public Service Leadership
- ECON 6073 - Research Seminar
- -OR- PUAD 5361 - Capstone Seminar

Total: 33 hours

Electives

If the student elects to take the capstone course ECON 6073 - Research Seminar

One 5000 or higher course with an ECON prefix (3 semester hours).

Students are strongly encouraged to take 3 elective hours of ECON 6053/6054 or to meet with an economics graduate advisor to discuss how to otherwise prepare for ECON 6073 - Research Seminar.

Four 5000 or higher course with a PUAD prefix (12 semester hours).

If the student elects to take the capstone course PUAD 5361 - Capstone Seminar

Two 5000 or higher course with an ECON prefix (6 semester hours).

Three 5000 or higher course with a PUAD prefix (9 semester hours).

Contact a graduate advisor in the Economics Department for information about Econ course requirements.

Contact a graduate advisor in the School of Public Affairs for information about public administration course requirements.

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 Policies and Procedures 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 CU Denver 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 CU Denver 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 - Leading 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 Dynamics in the 21st Century
- 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 dialog 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 - Public Service Leadership
 - 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 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 - Public Service Leadership

Total: 15 Hours

Take one of two

- PUAD 5003 - Research and Analytic Methods
- URPL 5040 - Urban Sustainability

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 - Urban Sustainability
- 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 - Urban Sustainability

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 - Public Budgeting and Finance
- 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 Policies and Procedures 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, 5010, 5012-5015, 5017, 5198, 5250 and 5830.]
- 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 by the start of their fourth semester.
- 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 non-thesis 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 www.math.ucdenver.edu/phd.

Bioengineering PhD

- Graduate School Policies and Procedures apply to this program.

Doctor of Philosophy (PhD) Degree Program

The PhD is offered to students with an undergraduate or master's degree in engineering or the life sciences. Students complete the degree in three to five years with a highly individualized training pathway. All PhD students complete a dissertation, which may have an industry component.

Visit our website (ucdenver.edu/bioengineering) or contact us at bioengineering@ucdenver.edu for more information.

Civil Engineering PhD

- Graduate School Policies and Procedures 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
- Construction Engineering and Management (through the Engineering and Applied Science PhD program)

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 Policies and Procedures apply to this program

Program co-directors: Gita Alaghband (CSE) and Mike Mannino (Business School)

Website: engineering.ucdenver.edu/CSISPhD

The CSIS PhD degree is designed to provide an infrastructure for a wide spectrum of research possibilities in the computer science and information systems field. It is offered jointly through the Department of Computer Science and Engineering (housed in the College of Engineering and Applied Science) and the Information Systems program (housed in the Business School.)

The CS track emphasizes the scientific, algorithmic, system design and computing aspects of the field, while the IS track has a major emphasis on information management and the entrepreneurial side of the field. The two tracks intersect through some graduate-level course work, research, and committee memberships to provide a broad perspective of research and development in IT for students.

The PhD degree is granted by the College of Engineering and Applied Science for those focused on the CS track and by the Business School for those focused on the IS track. The program is multidisciplinary by nature, and while it supports basic research in computer science and in information systems in the traditional sense, the thrust of the program is collaborative research within the program and with other institutions. Our students work with research centers and researchers from variety of disciplines, including the CU School of Medicine, chemistry, mathematics, biology, all engineering disciplines, economics, health, and education, in addition to industry and businesses. This distinctive infrastructure supports basic research in both CS and IS as well as the demand of computing and IT integration with all other scientific and business fields.

Admission Requirements

For more information regarding the admission requirements for the CSIS PhD, visit engineering.ucdenver.edu/CSISPhD.

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. One committee member may be from outside 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 at engineering.ucdenver.edu/CSISPhD

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 (if determined by the comprehensive exam committee)

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

A list of course work and other requirements for the degree should be prepared with the advisor and submitted to the program 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 to 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 CSIS program 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

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

Contact: Dr. Jody Beck, Director

Telephone: 303-315-1000

Email: jody.beck@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 funding. 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 PhD 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 main 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.

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. Once they become a doctoral candidate, students must register for at least one credit hour per semester. 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 main advisor. Students wishing to change their main 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 Main Advisor

The main 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 main advisor and two additional members. Including the main advisor, the majority of the committee members must be full-time faculty members of CAP, and the majority of the committee members must have a PhD degree.

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 main advisor, and must be approved by the PhD Program Director.

Comprehensive Examination Committee

This committee consists of a minimum of three graduate faculty members, including the main advisor. Although it is not a requirement, this committee should mainly consist of the Dissertation Advisory Committee. Including the main advisor, the majority of the committee members must be full-time faculty members of CAP, and the majority of the committee members must have a PhD degree. For the comprehensive examination, at least one member must represent the student's major field of study, and at least one member must represent the minor field of study.

Final Dissertation Examination Committee

This committee consists of a minimum of five members, including the main 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.

Up to one member of a Dissertation Advisory Committee and up to one member of the Comprehensive Exam Committee without a PhD will be allowed upon a majority vote of the PhD Faculty.

Curriculum

The minimum requirement is 36 semester hours of coursework, all of which must be at the Graduate level (5000 and above) and 30 hours of dissertation semester hours. All PhD students are required to take 12 semester hours of core courses.

The curriculum is divided into three stages consisting of core courses, major and minor field courses, and the dissertation. The program requires a minimum of 66 semester hours of graduate work, 36 of which must be earned while in residence.

Each student's curriculum is tailored to his/her individual needs and is determined in close consultation with the dissertation advisor. Within their area of specialization, students will identify a major area of study and an outside field of study. All students are required to enroll in the PhD colloquium and Research Methods core courses during the first and second years of course work.

Core Courses (12 semester hours, minimum with B or better grade)

- PhD colloquium 1 (1 semester hour)
- PhD colloquium 2 (1 semester hour)
- PhD colloquium 3 (1 semester hour)
- PhD colloquium 4 (1 semester hour)
- Literature Review survey with the committee chair (2 semester hours total)
- Two Research Methods courses (3 semester hours each)

Major Field of Study (15 semester hours, minimum of B or better grade)

The Major Field encourages students to individualize their course of study by focusing on an area of scholarship within the specialized field. Major Advisors will work with the student to develop a course of study appropriate to the field.

Minor Area of Study (9 semester hours, minimum of B or better grade)

The Minor Area encourages students to individualize their course of study by focusing on an area of scholarship outside of the specialized field. The minor area may involve substantive research questions or it may focus on methodological approaches that can be related to the substantive concerns found in the major.

Additional Courses (variable): (30 semester hours, minimum of B or better grade)

During the course of doctoral study, students may enroll for credits related to their preparation for comprehensive exams, the dissertation proposal and preparation, or advisor approved independent study.

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.

Education and Human Development 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: <http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/Doctorate/Pages/PhD.aspx>

The PhD in education and human development links an intensive research-based course of study with a content area specialization in order to prepare candidates to assume faculty positions in institutions of higher education or research-based organizations. Successful applicants will be paired with a faculty mentor who will engage the students in research, development, service, and other forms of professional activity.

You will complete a plan of study that includes at least 45 semester credits of coursework (including all required core courses) and 30 semester credits of dissertation. The PhD program is designed to provide each student with an induction into the university research and teaching culture. PhD coursework is intensive and substantive, requiring significant writing, analysis, and critiquing of theory and professional literature.

Overview of Course Work:

The PhD program consists of a minimum of 75 semester credits. Total credits may vary in order to fully prepare for career opportunities. Students complete 45 credits in three core areas outlined below. The final 30 credits are completed through the dissertation.

12 credits - Foundation courses/experiences: Equity and Diversity; Learning; Epistemology; and Teaching in Higher Education

18 credits - Research Methods

15 credits - Concentration Area (see the list options below)

30 credits - Dissertation

Doctoral students complete a series of courses/experiences in a specified concentration area. Concentration areas focus on a defined discipline or content area in preparation for professional roles as researchers and faculty members.

The following concentration areas are available.

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 the 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.

Early Childhood Special Education/Early Childhood Education. The goal of this concentration area is to introduce students to issues and practices in early childhood special education/early childhood education and to prepare students to provide leadership to improve outcomes for all children including children with disabilities across early childhood settings. Students will obtain the skills and knowledge of evidence-based practices needed to meet state and national leadership needs within institutions of higher education to address issues in ECE/ECSE. Graduates will: conduct rigorous research related to culturally responsive, evidence-based practices; translate research into practice, thus expanding the use of evidence-based practice in the field; and, create, evaluate, and improve pre-service teacher education programs in ECE and ECSE.

Family Science and Human Development. The goal of this concentration is to prepare students to critically examine and understand family science within an ecological life span development lens. This program prepares students to work in academic careers as professors, researchers and scholars in Family Science and Human Development. Students are provided a rich curriculum that centers on theoretical and scholarly based knowledge in family science, human development and research inquiry. Another objective of this program is to integrate the importance of family diversity (which includes race, ethnicity, culture, class, gender, sexual orientation, age, religion, ability and language) into the curriculum as it relates to social justice in family science and child, adolescent and adult development. Central to the Family Science and Human Development concentration is the conceptual framework of family and human ecological systems and how that impacts research, practice and policy with diverse families in the United States and at the global level.

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.

Research, Assessment and Evaluation. The goal of this concentration area is to prepare students to design and carry out significant applied research on individual and organizational change in the field of education and human development. Through problem-based pedagogy and hands-on learning, students will be prepared to be collaborative applied researchers who work with community, university and school partners. Students will learn advanced quantitative, advanced qualitative and mixed methods research techniques. Course content includes mixed methods, advanced statistics, advanced qualitative data analysis, systems analysis, collaborative team research and practicum experiences. Graduates of the program are prepared to work as faculty members, school district and organizational researchers, data analysts and assessment coordinators.

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.

Engineering and Applied Science PhD

Graduate School Policies and Procedures 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. Go to engineering.ucdenver.edu to learn more.

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 (engineering.ucdenver.edu/civil)
- Computer Science and Engineering (engineering.ucdenver.edu/cse)
- Electrical Engineering (engineering.ucdenver.edu/electrical)
- Mechanical Engineering (engineering.ucdenver.edu/mechanical)

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 Policies and Procedures 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 (3 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.

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
- HBSC 7161 - Quantitative Methods in Health&Behavioral Sciences II

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 3 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: 3 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: Michael Greene

Office: Science, 4111

Telephone: 303-556-5610

E-mail: Michael.Greene@ucdenver.edu

Website: clas.ucdenver.edu/biology/grad.html

Requirements for Admission

- A BA/BS or MS from an accredited institution awarded within the last 10 years (validation of current content may be required). Minimum undergraduate GPA: 3.0
- General GRE test: minimum 50% performance in each section (quantitative, verbal, and analytical writing)
- TOEFL: required for international applicants from countries in which English is not the official language
- 3 letters of recommendation
- Official transcripts from all attended institutions

- Students are required to contact faculty in advance. Prior to application, applicants must have identified and contacted an available Faculty Advisor to ensure availability of a position and appropriate research interests

Prerequisite courses required:

- One year of General Biology is preferred. Where needed, supplementary courses or reading programs may be designed to provide background information of sufficient depth for the Program curriculum
- One course in applied or biological statistics (through regression and ANOVA)
- Additional prerequisite requirements may be set by individual faculty

Applications will be considered annually starting January 15 for both domestic US students and international students. Application to the PhD program is through CU Denver Admissions.

Degree Requirements

The PhD degree requirements comprise six phases. First, students must complete a minimum of 60 credits, including 30 dissertation credits. Up to 30 hours of graduate level courses from other programs may be transferred and counted toward the degree. Students must also pass the Preliminary Exam, form an Advisory Committee and an Examination Committee, meet the academic residency requirement, pass the comprehensive exam, and write and orally defend a dissertation.

Research-based PhD degree program requires

1. Completing 60 credits including 30 of dissertation (BIOL 8990)
2. Meeting minimum academic residency requirements
3. Passing the Preliminary Exam
4. Forming Advisory and Examination committees
5. Writing and defending research proposal
6. Passing the Comprehensive Exam
7. Writing and defending dissertation (including >1 publishable paper)

Required Courses

- BIOL 6764 - Biological Data Analysis (4 credits taken in the first year)
- BIOL 6705 - Biological Research Workshop (4 credits total, taken two different times in the student's career)
- BIOL 6655 - Seminar (2 credits total, taken two different times in the student's career)
- BIOL 7010 - Integrative and Systems Biology (3 credits taken in the first year)
- BIOL 7050 - Special Topics (a minimum of 3 credits must be completed, but students may take up to 9 credits)
- BIOL 8990 - Doctoral Dissertation (30 credits must be completed after passing the Comprehensive Exam)
- BIOL 6002 - Biology Skills Sets - Pedagogy (2 credits taken in the first year; only required for students supported by a Graduate Teaching Assistantship)

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: <http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/Doctorate/Pages/EdD.aspx>

Program Overview

Students completing this program earn a Doctorate of Education (EdD) in Leadership for Educational Equity. The EdD is a practice-based doctorate for professional leaders in P-20 or community-based educational contexts. The EdD prepares 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 equity and access to education. You will learn to translate research into practice, influence policy, use data effectively in decision-making, and organize individuals and groups to address challenges collaboratively and successfully.

This program reflects a cohort model. In addition to core courses, you select a concentration area (see the list below). Courses are offered in weekend, hybrid (part face-to-face, part online), online and/or summer intensive formats. Students follow their cohort in taking the prescribed coursework and experiences for three consecutive years. A five-year path is also available for students working full-time in the summer.

Course Work - 54 Semester Credits

- 6 credits - Equity core
- 6 credits - Leadership and Organizational Performance core
- 6 credits - Learning core
- 12 credits - Concentration area (select one)
- 9 credits - Research core
- 15 credits - Dissertation

Concentration Areas

Executive Leadership (with Licensure Option): is 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. Students working in P-12 schools may also choose either an administrator or a principal licensure option. Roles may include that of a director, deputy, superintendent or president.

Early Childhood Special Education/Early Childhood Education: is designed to introduce students to issues and practices in early childhood special education/early childhood education and to prepare students to provide leadership to improve outcomes for children with disabilities across early childhood settings. The program will prepare students who can act effectively as administrators in districts, agencies and programs to improve outcomes of all children, including children with disabilities.

Mathematics Education: students and faculty 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 situated 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.

Professional Learning and Technology (PLT): this concentration area brings together faculty and students seeking to support working educators in ongoing professional development (PD) and learning activities, helping them become more effective and productive in their jobs. The PLT focus addresses the PD needs of K-12 teachers but also those of higher educators and workplace learners. Applying principles of adult learning, instructional design and change leadership, we use a variety of methods (mentoring, coaching, site-based communities, e-learning resources, workshops etc.) to support professional growth and accountability. The PLT courses in the EdD program prepare you to assume leadership in professional learning programs at all levels (site-based, district- or organization-wide), applying the latest research and best practices of the profession.

Science Education: prepares 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.

Latin@ Schools and Communities: this concentration will focus on leadership, organizational change and measurement, data-informed decision-making, and creating equity and excellence for all children. Students will look at school re-structuring for linguistic diversity, language education policy and politics, and issues of assessment and instruction for Latino/a students. Together with their faculty mentors, students will work with real data sets and authentic observations and apply their leadership skills to create real world solutions for change.

Urban and Diverse Communities: the Urban and Diverse Communities concentration area is developed for practitioners in PK-12, higher education, or community-based settings. Students will impact urban and diverse educational systems through developing a complex view of educational opportunities and challenges that are influenced by policies and practices in housing, healthcare, employment, urban development, and similar fields. Also, students will develop the skills and dispositions to work alongside communities, while developing an understanding of the historical and cultural realities facing those communities.

Psychology, Clinical Health Psychology PhD

- Graduate School Policies and Procedures apply to this program

Objectives of the Program

Clinical health psychology focuses the interaction between psychological, physiological, and environmental factors as they influence health and well-being. This emphasis includes focus on: 1) the development of effective disease prevention behavioral interventions for individuals and populations at high risk for medical problems; and 2) the development of strategies to help individuals who are already ill to manage their disease and to increase their ability to collaborate with medical professionals and improve their coping skills. A clinical health psychologist combines expertise in research on health psychology with training in clinical psychology. Students in this program are trained to work within the community to use clinical psychological skills and techniques to diagnose and treat mental health conditions, promote health and prevent illness, apply behavioral interventions in the treatment of illness, and improve the health care system. In addition to course work, students acquire expertise in research by completing both a master's thesis and doctoral dissertation. They demonstrate competence in clinical assessment and

intervention through several applied practicum experiences, successful passage of the Comprehensive Clinical Competency Examination and successfully completing a pre-doctoral psychology internship. Students can complete the program in five years and have up to eight years to complete the program according to Graduate School Policies and Procedures.

Admissions

The application deadline for receipt of all student information is December 1 for the following fall. You are responsible for making sure all materials are in on time. International students should be sure to submit all materials at least two weeks before this deadline (by November 15) so that they arrive at our department on time. Below is condensed information; see

<http://www.ucdenver.edu/academics/colleges/CLAS/Departments/psychology/Pages/Psychology.aspx> 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 1 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 have been able to offer positions to 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.

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 Policies and Procedures.

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 master's degree 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 expected in preparation for application to pre-doctoral internships. Approximately 50% of required practica are typically conducted in medical settings. Sites for practica training, include the department's own Psychological Services Center and 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 Training.

Demonstration of Clinical Competency:

During the second semester of their third year in the program students 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 CCCE 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.

[Return to Department of Psychology](#)

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 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 7700 - Clinical Research Methods
- PSYC 7710 - Multivariate Statistics
- PSYC 7713 - Advanced Statistics
- PSYC 7730 - Ethics and Professional Issues in Psychology
- 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 8938 - Pre-Doctoral Internship
- PSYC 8990 - Doctoral Dissertation
- PSYC 7410 - Assessment I: Personality
- PSYC 7420 - Assessment I: Intellectual and Cognitive Assessment
- PSYC 8910 - Advanced Clinical Practicum

Public Administration PhD

Introduction

► Graduate School Rules apply to this program

Program Director: Tanya Heikkila, PhD

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.

Faculty

Professors:

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 Teske, PhD, Princeton University

Associate Professors:

Allan Wallis, PhD, City University Graduate Center
Christine Martell, PhD, Indiana University
Tanya Heikkila, PhD, University of Arizona
Lori Hughes, PhD, Washington State University
Callie Rennison, PhD, University of Houston
Danielle M. Varda, PhD, University of Colorado Denver
Chris Weible, PhD, University of California-Davis

Assistant Professors:

Todd Ely, New York University
Lonnie Schaible, PhD, Washington State University
Benoy Jacob, PhD, University of Illinois at Chicago
John Ronquillo, PhD, University of Georgia

Research Professor:

Stephen Block, PhD, University of Colorado

Clinical Professor:

Malcolm Goggin, PhD, Stanford University

Students

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 four to six 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 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 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, Dissertation Proposal, 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 comprehensive exam that demonstrates their preparation for conducting dissertation research. At the proposal defense, 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 and have been certified for candidacy by his/her doctoral committee. After students are formally advanced to candidacy, they must complete 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 unenrolled 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>.

School Psychology PsyD

Return to: School of Education & Human Development

- Degree
- Admission Requirements

Program Leader: Franci Crepeau-Hobson

Office: Lawrence Street Center, 1113

Phone: 303-315-6315

Fax: 303-315-6349

E-mail: franci.crepeau-hobson@ucdenver.edu

Website: www.ucdenver.edu/education/spsy

Faculty

Information about faculty in the school psychology program is available online at www.ucdenver.edu/education.

Degree

The doctor of psychology (PsyD) degree in school psychology is a 96 graduate semester-hour program that leads to licensure as a school psychologist by the Colorado Department of Education and prepares graduates to apply for licensure by the Colorado State Board of Psychologist Examiners.

The program is based on the *Accreditation Domains and Standards* of the American Psychological Association (APA) and the *Model for Comprehensive and Integrated School Psychological Services* endorsed by the National Association of School Psychologists (NASP). This model and these standards promote the following domains of psychology: data-based decision-making and accountability; consultation and collaboration; interventions and mental health services to develop social and life skills; school-wide practices to promote learning; preventative and

responses services; family-school collaboration services; diversity in development and learning; biological bases of behavior; research and program evaluation; and legal, ethical and professional practice.

Consistent with a practitioner-scholar model, the PsyD Program in School Psychology prepares professional school psychologists through rigorous academic study integrated with intensive supervised clinical practice. The Program includes an emphasis on the delivery of mental health services in schools, as well as the development of advanced level practice skills. The Program stresses the application of scholarly findings to practice, as well as a respect for all aspects of diversity.

Bilingual School Psychologist Concentration Option

This optional specialization provides School Psychology students with the knowledge and skills to effectively serve English language learners in the school setting. In addition to the three 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 3.2 undergraduate GPA and a combined score of at least 300 on the verbal and quantitative sections 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 or vita, a personal statement that outlines their reasons for pursuing a degree in school psychology at CU Denver, and three letters of recommendation. The highest ranked applicants will be invited to a full-day group interview that includes a program orientation, a writing assignment, and a campus tour.

Application materials are available at

https://soa.prod.cu.edu/degreeprog/applyDEGREEPROG_CUDEN/login.action. All materials must be submitted online by December 1 for fall semester admissions. 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/personal statement
- resume or vita
- three letters of recommendation
- 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 Doctor of Psychology Degree in School Psychology and Licensure

Students will complete course work in learning and cognition, academic interventions, legal and professional issues, psychological assessment, crisis intervention, counseling and other direct interventions, and consultation. Specific course requirements include three prerequisite courses, 71 credit hours of coursework, 7 credit hours of practica (minimum of 500 hours in the field), 6 credit hours of clinical externship (minimum of 500 clock hours in the field), 8 credit hours of internship (minimum of 1500 clock hours in the field), and 4 capstone project credit hours. Successful completion of the School Psychology Praxis exam during the course of study and passing of

comprehensive examinations are also required. Prerequisites include an undergraduate or graduate course in each of the following: measurement concepts, basic statistics, and child development. Students may be admitted to the program without first completing these prerequisites; however, these courses must be completed during the first year of study.

Program Requirements

Students will complete the following core course work:

- COUN 5010 - Counseling Theories
- EDHD 5240 - Cognition and Instruction
- SPSY 7500 - Neuroeducational Assessment and Intervention
- PSYC 7511 - Historical and Philosophical Foundations of Psychology
- PSYC 8550 - Advanced Social Psychology
- RSEM 6100 - Methods of Qualitative Inquiry
- RSEM 7050 - Methods of Survey Research
- RSEM 7110 - Intermediate Statistics
- RSEM 7210 - Program Evaluation
- 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 6350 - School-Based Interventions: Children, Youth and Families
- SPSY 6400 - School-Based Interventions: Groups, Classrooms and Systems
- SPSY 6410 - Psychoeducational Assessment of Culturally and Linguistically Diverse Students
- 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 6700 - Advanced Seminar in School Psychology
- SPSY 7980 - Clinical Supervision and Administration of Psychological Services

Supervised Experiences

- SPSY 6911 - School Psychology Practicum
- SPSY 6917 - Advanced Practicum in Psychological Assessment
- SPSY 6918 - Clinical Externship
- SPSY 6930 - School Psychology Internship

Total: 96 Hours

The doctor of psychology in school psychology degree also requires satisfactory completion of a case study, demonstrating mastery of the program objectives, a passing score (≥ 147) on the ETS PRAXIS specialty exam in school psychology, a passing score on a written comprehensive examination, and enrollment in 4 credit hours of SPSY 8980 and completion of a capstone/applied research project .

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.

Licensure

Administrator License - Executive Leadership Program

Designed for the professional educator who, already holding a master's degree and 5 years leadership experience in education, wishes to apply for an initial administrator license through the Colorado Department of Education and prepare for a career as a superintendent or other district leader. In addition to coursework, a passing score on the Administrator PLACE content exam (or Praxis #5411 Educational Leadership: Administration and Supervision) is also required for administrator licensure through the Colorado Department of Education. PLACE exams will be available until their last administration date of May 6, 2017 and PLACE scores will be accepted by the Colorado Department of Education for 5 years until May 6, 2022. The 12-semester-hour administrator licensure program combines weekend meetings with online work and hands-on clinical practice-usually completed in participants' home districts:

EDUC 7500 - Strategic Human Capital Development

EDUC 7510 - Strategic Organizational Management

EDUC 7520 - Strategic System Improvement

EDUC 7530 - Strategic Leadership Development

These courses are differentiated for four student types: certificate students, administrator licensure students, EdS students, EdD students and PhD students. Learn more at www.ucdenver.edu/education/elp.

Early Childhood Special Education Specialist Licensure

Early Childhood Special Education Program

The early childhood special education (ECSE) program leads to a Colorado teacher license or added endorsement in ECSE specialist. The program prepares leaders who will enrich the life experience of young children (ages birth to 8 years) with special needs and their families through a variety of professional roles.

The ECSE 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

ECSE specialist license: 33 semester hours

Master's degree plus ECSE specialist license: 39 semester hours

Master's degree plus ECSE specialist added endorsement: 33 semester hours

ECSE specialist added endorsement: 24 semester hours

The early childhood special education program provides specialized training in:

- language development and disorders
- child growth and development, differences and disorders
- learning approaches with young children
- measurement and evaluation
- multicultural education
- research methods and current issues
- early childhood curriculum and program development for inclusive classrooms
- working collaboratively with parents and families
- program administration/leadership
- 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

For 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 complete 510 hours of practicum experiences.

Principal Licensure

ALPS offers coursework that leads to eligibility to apply for the initial license for principal through the Colorado Department of Education. A passing score on the Principal PLACE #80 content exam (or Praxis #5411 Educational Leadership: Administration and Supervision) is also required for principal licensure through the Colorado Department of Education. PLACE exams will be available until their last administration date of May 6, 2017 and PLACE scores will be accepted by the Colorado Department of Education for 5 years until May 6, 2022. Having earned an initial license, those who go on to complete a district sponsored induction program may then apply for a professional license through 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 submit performance-based assessments (PBAs) during the principal licensure program to LiveText, an online assessment system. PBAs not approved 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 for pursuing administrator (superintendent) licensure.

Principal Licensure Cohort Options

Typically, cohorts are comprised of approximately 25 principal candidates who move through the four-semester principal licensure program together. We look for applicants to have a teaching or special services license plus a minimum of three years post-licensure experience. We welcome applicants from all districts into our principal licensure cohorts. However, we partner with metro-area districts to prepare leaders specifically for their schools.

Distance Learning Cohort

The Distance Learning cohort option has a long history of serving students who live far away from campus. Additionally, this cohort offers students a hybrid (online and face-to-face) course format. Students meet in the first summer for a three-day boot camp. In the fall, they experience two Friday/Saturday weekend sessions. And, they attend two more weekend sessions the following spring. During the second summer, they attend a culminating half-day session. The remainder of the work is completed online.

Denver Public Schools

The Denver Public Schools (DPS) cohort option is one of the DPS Pathways to Principalship. The work in this cohort is focused on leadership for multilingual learner student populations as well as cultural leadership. Instructors and students work closely with not only state and national standards, but also with the LEAD Framework to prepare principals. Students meet on one Saturday and two Tuesdays a month over four semesters. A new cohort starts each spring. Please review this information on the DPS website.

Jefferson County Public Schools

The JeffCo cohort option is offered in partnership with Jefferson County Public Schools. Courses occur on twelve Tuesday evenings during each of the four semesters. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced JeffCo administrators.

Northern Cohort

The Northern Cohort option is offered in partnership with the Boulder Valley School District for applicants from northern-metro districts. This cohort meets on Wednesday evenings during each of the four semesters of the program. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced district administrators.

CU South Denver Cohort

The CU South Denver cohort serves southern-metro districts (Douglas County, Cherry Creek, Littleton, Sheridan, Englewood, Lewis-Palmer and Colorado Springs School District 11.) This cohort meets on twelve Tuesdays during each of four semesters at the Liniger Building at CU South Denver. This standards-based, performance-based assessed, cohort program is taught by university professors and experienced district administrators.

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: 3 to 9
EDUC 5752 - Principal Administrator Licensing II. Semester Hours: 3 to 9
EDUC 5753 - Principal/Administrator Licensing III. Semester Hours: 3 to 9
EDUC 5754 - Principal or Administrator Licensing IV . Semester Hours: 3 to 9

Total: 32 Hours

Endorsement Programs

Early Childhood Special Education Specialist Endorsement

Early Childhood Special Education Program

The early childhood special education (ECSE) program leads to a Colorado teacher license or added endorsement in ECSE specialist. The program prepares leaders who will enrich the life experience of young children (ages birth to 8 years) with special needs and their families through a variety of professional roles.

The ECSE 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

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ECSE specialist added endorsement: 24 semester hours

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- language development and disorders
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- measurement and evaluation
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- research methods and current issues
- early childhood curriculum and program development for inclusive classrooms
- working collaboratively with parents and families
- program administration/leadership
- 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

For 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 complete 510 hours of practicum experiences.

Instructional Technology Endorsement

Licensed 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. Upon program completion, teachers with a minimum of 3 years of licensed teaching experience can apply for the specialist-level endorsement. The teacher-level endorsement requires a teaching license, but does not require licensed teaching experience.

For complete details about ILT programs, endorsement requirements and certificates, see the ILT website.

Teacher Librarian Endorsement

Office: 999 18th St.

Telephone: 720-639-9228

Fax: 303-315-6311

E-mail: cpe@ucdenver.edu

Website:

<http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/MASTERS/SchoolLibrary/Pages/SchoolLibrary.aspx>

Faculty

Information about faculty is available online at

<http://www.ucdenver.edu/academics/colleges/SchoolOfEducation/Academics/MASTERS/SchoolLibrary/Pages/SchoolLibrary.aspx>

Program Overview

The Teacher Librarian Leadership endorsement program within the ILT master's degree program is a revised and approved teacher librarian education program that leads to the Colorado Department of Education endorsement for teacher librarians. The program integrates 21st Century Learning Standards as approved by the American Association of School Libraries with Common Core content standards and leadership competencies. The program

adheres to the constructivist theory of resource-based learning, teacher leadership, instructional coaching, and media literacy. The program believes that teacher librarians as endorsed by a state's department of education 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 teacher librarian, you will provide collaborative instructional planning, facilitation of professional learning, utilization of information literacy, online instructional resources, and teacher leadership through the management of your library program and online. Courses are offered in a completely online program.

Once admitted, students begin a plan of study that typically takes about 18 months to complete. Consult the program 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 program website for complete admission procedures and requirements.

Professional Expectations

All students in the endorsement 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 endorsement 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, 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

Students have a choice between a teacher librarian endorsement-only and a full master's program with a teacher-librarian endorsement. The endorsement requires a minimum of 24 graduate semester hours. Students complete a plan of study consisting of courses and professional field experience. Students must be licensed as a teacher or plan to complete a teacher endorsement prior to seeking the additional endorsement as a Teacher Librarian. This is a Colorado Department of Education requirement.

Consult with your program and faculty advisor for a current example of a program plan of study.

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.

24 Credit Endorsement Degree Plan of Study

Prefix: Course Title	Term	Credits
SCHL 5100: School Libraries in the Digital Age	Fall	3
SCHL 5030: Information Literacy & Reference	Fall	3
SCHL 5160: Managing School Library Programs	Spring	3
SCHL 5200: Promoting Literacy through SL	Summer	3
SCHL 5913: School Library Field Experience	Fall	3
INTE 5300: Media Literacy & Maker Spaces	Summer	3
One of the courses in the Teacher Leadership Certificate program	Varies	3
One of the courses in the Online Learning Certificate program	Varies	3

Graduate Certificate Programs

Applied Statistics Graduate Certificate

► Graduate School Policies and Procedures apply to this program.

Coordinator: Stephanie Santorico:

Telephone: 303-315-1714

E-mail: Stephanie.Santorico@ucdenver.edu

Web site: www.math.ucdenver.edu

There is a growing need for qualified statistical analysts of the ever-increasing amounts of data collected in business, industry, and government. The Certificates in Applied Statistics program is designed to give students a strong background in statistical methodology and data analysis in preparation for opportunities in the work force or for graduate studies.

Students will gain competence in such topics as descriptive statistics, estimation, confidence intervals, probability and inferential techniques, simple and multiple regression, analysis of variance, and more advanced topics. Students can focus on a particular application area such as economics, psychology, sociology, geology, or environmental science through the choice of an elective course and the data analysis project.

Admissions Requirements

Applicants must hold a baccalaureate degree (not necessarily in mathematics) from an accredited college or university (or demonstrate completion of work equivalent to the baccalaureate degree given at CU Denver) with at least a 3.0 grade point average (GPA). Students must also have 24 semester hours of mathematics, at least 18 of

which are upper division courses with a grade of B- or better. These courses must include calculus 1, 2 and 3 as well as linear algebra and probability at the undergraduate level. Exceptions to admission criteria may be made on a case by case basis.

Certificate Requirements

Four courses and a 1 hour independent study are required as detailed below.

Two Fundamental Courses in Statistics

- MATH 5320 - Introduction to Mathematical Statistics
Offered: SPRING
- MATH 5387 - Applied Regression Analysis
Offered: FALL, SPRING

One Advanced Applications Course

Topics vary from year to year. Course must be pre-approved by certificate coordinator and cannot be MATH 5830. Representative courses include:

- MATH 5394 - Experimental Designs
- MATH 6376 - Statistical Computing
- MATH 6380 - Stochastic Processes
- MATH 6384 - Spatial and Functional Data Analysis
- MATH 6388 - Advanced Statistical Methods for Research
- MATH 6393 - Introduction to Bayesian Statistics
- MATH 7384 - Mathematical Probability
- MATH 7826 - Topics in Probability and Statistics

One Elective

- Any statistics course in the Department of Mathematical and Statistical Sciences at the 5000 level or higher (must be pre-approved by the Certificate Coordinator). MATH5830 cannot apply towards the certificate.
- 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
- SOCY 5183 - Seminar: Quantitative Data Analysis
- Equivalent course pre-approved by the Certificate Coordinator

Project Requirement

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 pre-approved by the Certificate Coordinator.

Additional Requirements

Students must maintain a 3.0 GPA or above in these courses with no credit given for courses with grades below B-. 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 must be taken in residency at University of Colorado Denver. Students must be enrolled in one course per year to maintain their status in the certificate program. Certificates must be completed within 3 years from matriculation.

Biochemistry Certificate

Students should meet with the chemistry major advisor to file a certificate plan prior to the semester of graduation. The certificate is available to degree seeking undergraduates, non-degree seeking graduate students and students pursuing a chemistry minor.

These degree requirements are subject to periodic revision by the academic department, and the College of Liberal Arts and Sciences reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with the Chemistry advisor to confirm the best plans of study before finalizing them.

A grade of 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 B or better in each class, and a minimum GPA of 3.0 among the Required Courses including electives counted toward the Certificate. Students must adhere to the Graduate School Rules for this program.

Certificate Requirements

Prerequisites

Prerequisites for the Certificate (these courses do not have to be completed at CU Denver but must have been completed within ten years of receipt of the Biochemistry Certificate):

- 2 semesters General Chemistry, with laboratories
- 2 semesters General Biology, with laboratories
- 2 semesters Organic Chemistry, with at least 1 semester laboratory

A grade of C(2.0, not C-) or better in each of the Prerequisites is required.

- CHEM 2031 - General Chemistry I
- CHEM 2061 - General Chemistry II
- CHEM 2038 - General Chemistry Laboratory I
- CHEM 2068 - General Chemistry Laboratory II
- BIOL 2051 - General Biology I
- BIOL 2061 - General Biology II

- BIOL 2071 - General Biology Laboratory I
- CHEM 3411 - Organic Chemistry I
- BIOL 2081 - General Biology Laboratory II
- CHEM 3421 - Organic Chemistry II
- CHEM 3418 - Organic Chemistry Laboratory I
- OR**
- CHEM 3428 - Organic Chemistry Laboratory II

Required Courses

The required courses including electives must be completed at CU Denver with a grade of B or better in each class, and a minimum GPA of 3.0 among the Required Courses including electives counted toward the certificate. All courses must be taken within ten years of receipt of the Biochemistry Certificate.

Take **one** of the following Biochemistry courses:

- CHEM 4810 - General Biochemistry I
- OR**
- CHEM 5810 - Graduate Biochemistry I

Take **one** of the following Biochemistry courses:

- CHEM 4820 - General Biochemistry II
- OR**
- CHEM 5830 - Graduate Biochemistry II

Take:

- BIOL 3611 - General Cell Biology

Electives

Take **two** of the following elective courses in consultation with your certificate advisor:

- BIOL 3124 - Introduction to Molecular Biology
- OR**
- BIOL 4128 - Topics in Molecular Biology
- BIOL 3225 - Human Physiology
- BIOL 3832 - General Genetics
- BIOL 4064 - Advanced Cell Biology
- OR**
- BIOL 5064 - Advanced Cell Biology
- BIOL 4068 - The Cell Cycle
- OR**
- BIOL 5068 - The Cell Cycle
- BIOL 4125 - Molecular Biology Laboratory
- OR**
- BIOL 5125 - Molecular Biology Lab
- BIOL 4126 - Molecular Genetics

OR

- BIOL 5126 - Molecular Genetics
- BIOL 4144 - Medical Microbiology

OR

- BIOL 5144 - Medical Microbiology
- BIOL 4550 - Cell Signaling

OR

- BIOL 5550 - Cell Signaling
- CHEM 3011 - Inorganic Chemistry
- CHEM 3111 - Analytical Chemistry
- CHEM 4121 - Instrumental Analysis
- CHEM 4511 - Physical Chemistry: Thermodynamics and Kinetics
- CHEM 4521 - Physical Chemistry: Quantum and Spectroscopy
- CHEM 4828 - Biochemistry Lab
- 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
- PHYS 3452 - Biophysics of the Cell NM

Bioinnovation and Entrepreneurship Certificate

The Business Schools graduate certificates are primarily intended to give individuals with an undergraduate degree in any discipline access to business courses that can help them succeed in their current job or even help them launch their own company.

Students can pursue one of our graduate certificates, even if they are not CU Denver students, without taking the GMAT. Credit earned as a part of the certificate DOES count towards your graduate business degree, should you choose to pursue a degree here. One such certificate is our Bioinnovation and Entrepreneurship Certificate.

Bioinnovation and Entrepreneurship Certificate

The Certificate in Bioinnovation and Entrepreneurship is one-of-a-kind, and is geared to helping bioentrepreneurs achieve commercial success. Students have opportunities to participate in a number of Jake Jabs Center programs; including the annual business plan competition, internships in area businesses, speaker programs with local entrepreneurs, and connection with new ventures. Visit the Jake Jabs Center for Entrepreneurship to learn more about our entrepreneurship programs.

Bioinnovation Certificate Information

Commodities Certificate

The Business Schools undergraduate certificates are primarily intended for students currently pursuing a degree in any undergraduate discipline that want to expand their business knowledge to give themselves a leg up when they enter the work force. However, they can also be taken by students with only a high school diploma.

In addition, the Business Schools also offers graduate certificates which are primarily intended to give individuals with an undergraduate degree in any discipline access to business courses that can help them succeed in their current job or even help them launch their own company.

Students can pursue one of our undergraduate or graduate certificates in Commodities, even if they are not CU Denver students. Credit earned as a part of the certificate DOES count towards your undergraduate degree, should you choose to pursue a degree here. One such certificate is listed below:

Commodities Certificate

The Business School awards a Certificate (of completion) in Commodities to students completing three finance and commodities courses. Students completing the certificate will have an improved understanding of the complex commodities market. Topics covered include regulation, trading, financial fundamentals, investing, risk management and ethics. Please contact the Commodities Center for more information.

Democracy and Social Movements Graduate Certificate

► Graduate School Policies and Procedures apply to this program.

Program Advisor: Lucy McGuffey

Office: Student Commons Building, Room 3217

Telephone: 303-315-1761

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 peace building, 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

[Top](#)

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 5140 - Design Studio IV

Total: 18 Hours

Emergency Management and Homeland Security Concentration

The graduate concentration in Emergency Management and Homeland Security is available as a concentration within the MCJ program or as a stand-alone certificate for non-degree students. This concentration requires 15 credit hours (5 courses) and provides advanced education in the management of emergencies, hazards, disasters, and homeland security. Students completing this sequence will develop the knowledge and skills necessary to assess and manage a broad range of hazards and disasters and to understand the policy environment in which emergency management occurs.

Requirements

Students take two of the following three required courses as well as three elective courses approved by their advisor. The three elective courses may be drawn from the student's particular area of interest, such as policy and management, spatial analysis and quantitative assessment, or public safety.

- GEOG 5230 - Hazard Mitigation and Vulnerability Assessment
- PUAD 5650 - Public Policies for Homeland Security and Disasters
- PUAD 5450 - Law of All-Hazards Management

Entrepreneurship Certificate

The Business Schools undergraduate certificates are primarily intended for students currently pursuing a degree in any undergraduate discipline that want to expand their business knowledge to give themselves a leg up when they enter the work force. However, they can also be taken by students with only a high school diploma.

Students can pursue one of our undergraduate certificates, even if they are not CU Denver students. Credit earned as a part of the certificate DOES count towards your undergraduate degree, should you choose to pursue a degree here. One such undergraduate certificate is listed below:

Launchpad Entrepreneurship Certificate

This certificate can be earned in either downtown Denver at the Jake Jabs Center for Entrepreneurship or CU South Denver.

The Jake Jabs Center for Entrepreneurship is offering an affordable program in one of the fastest growing business segments in the country-Innovation and Entrepreneurship. All courses are taught by faculty from the Jake Jabs Center for Entrepreneurship at CU Denver. You will find many opportunities including scholarships, mentoring, and networking. You will gain skills that prepare you to start a successful business or become an entrepreneurial asset to an existing company.

Benefits:

- Experiential opportunities
- Condensed 8-Week courses
- Two convenient Denver locations

- Cost effective - Scholarships available
- No GPA requirements or prerequisites

For more details about Launchpad courses and registration, visit the Launchpad Certificate page.

The Business Schools also offers post-graduate certificates which are primarily intended to give individuals with an undergraduate degree in any discipline access to business courses that can help them succeed in their current job or even help them launch their own company.

Students can pursue one of our graduate certificates, even if they are not CU Denver students, without taking the GMAT. Credit earned as a part of the certificate DOES count towards your graduate business degree, should you choose to pursue a degree here. One of the post-graduate certificates is listed below:

A Certificate in Entrepreneurship gives students the ability to marshal resources to seize new business opportunities which have uncertain outcomes. The post-bachelors certificate introduces students to fundamental entrepreneurial concepts plus provides the flexibility to allow them to explore specialized areas of interest including cutting-edge social entrepreneurship, new venture design, finance structuring, legal issues, leadership, marketing and personal branding, new product development and business plan creation. Visit the Jake Jabs Center for Entrepreneurship to learn more about our entrepreneurship programs.

Environmental Policy, Management and Law Concentration/Graduate Certificate

The graduate concentration in Environmental Policy, Management and Law is available as a concentration within the MPA program, or as a stand-alone certificate for non-degree students. This concentration, which requires 15 credit hours (5 courses), provides an understanding of how our natural environment is governed and 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 core of the EPML program requires completion of two required graduate seminars, all taught by faculty who specialize in environmental affairs. Then students select three elective courses under faculty advisement.

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

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 - GIS Analysis
- URPL 6500 - Environmental Planning/Management
- 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 - Public Policies for Homeland Security and Disasters
- 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 Science Education Graduate Certificate

► Graduate School Policies and Procedures apply to this program.

Certificate Advisor: Bryan Wee

E-mail: bryan.wee@ucdenver.edu

Introduction

Please click [here](#) to see Geography and Environmental Sciences Department information.

Certificate Objectives

1. Students will synthesize environmental science content with relevant educational practices
2. Students will recognize, understand and apply environmental science education in either formal or informal educational settings
3. Students will utilize education research methods to support disciplinary learning
4. Students will identify a broader set of career options (see list below)

Sample list of career options

- K-12 Teacher or curricular specialist
- UNICEF/UNESCO/World Heritage Foundation
- National Parks Service or U.S. Forest Service
- Non-profit organizations (e.g. Colorado Alliance for Environmental Education)
- Regulatory Agencies (e.g. U.S. Environmental Protection Agency)
- Environmental and/or Educational Consultancy Firms
- Adjunct lecturer or instructor

Program Delivery

This is both an on-campus and field-based program.

Declaring This Certificate

Please see the Certificate advisor.

General Requirements

Click [here](#) for information about Academic Policies.

Eligibility

Environmental Science Education has broad applications across many disciplines. Students who already hold a bachelor's degree from CU Denver or other institutions in any major may be admitted as a CU Denver graduate student or a non-degree-seeking student, depending on enrollment status.

Current CU Denver Students

A student may begin the program in any semester or during the summer by making arrangements with the Certificate advisor. This should be done as soon as you have decided to pursue the certificate, and no later than the semester previous to completion of all the courses required to obtain the certificate.

Former CU Denver Students or Graduates of Other Universities

In order to start the certificate program, you will need to apply to the university as a non-degree seeking student if you are not already enrolled in a graduate program within CU Denver. Once accepted, you will be able to enroll in all of the appropriate classes.

Admissions: <http://www.ucdenver.edu/admissions/non-degree/Pages/default.aspx>.

Current Tuition Rates:<http://www.ucdenver.edu/student-services/resources/CostsAndFinancing/Pages/CostsandFinancing.aspx>.

Specific questions about enrollment or tuition should be addressed directly to the University Registrar's Office.

PROGRAM EXPECTATIONS

Because a certificate is a CU Denver certification of a students' specialized knowledge in an advanced subject matter, all courses in a certificate program are expected to be taken in residency at CU Denver. Only in rare circumstances will exceptions be made regarding this policy. Courses taken within the Environmental Science Education Certificate may be used towards one other degree requirement. Any changes to the standard curriculum program must be approved in writing by the Certificate advisor. Please pay close attention to prerequisites for specific courses.

PERFORMANCE EXPECTATIONS

Students must earn a 3.0 GPA average with no course below a "B-" in all approved courses for the certificate. For graduate and non-degree seeking students, the certificate will be awarded upon completion of the program and be added to the student's transcript.

Certificate Requirements

As a graduate or non-degree student at CU Denver, the requirements for the Environmental Science Education Certificate are two core classes and two electives, totaling 12 hours. All classes must be taken at the graduate level (5000 or above) to fulfill the requirements of the Certificate.

Required Courses (6 credit hours)

- ENVS 5340 - Equity & Culture in Science Education: Local/Global
- ENVS 5650 - Environmental Education

Electives (6 credit hours)

Select from the following list of electives. Students should consult with the certificate advisor about other courses that may count toward this requirement.

- ANTH 5170 - Culture and the Environment
- BIOL 5154 - Conservation Biology

- COMM 5282 - Environmental Communication
- ENVS 5020 - Earth Environments and Human Impacts
- ENVS 5470 - Sustainable Urban Agriculture Field Study II
- GEOG 5265 - Sustainability in Resources Management
- GEOG 5335 - Contemporary Environmental Issues
- GEOG 5440 - Science, Policy and the Environment
- PSCI 5354 - Seminar: Environmental Politics and Policy

Gender-Based Violence Concentration/Graduate Certificate

A student may choose to complete a concentration in gender-based violence studies as part of the MCJ or MPA degree, or the gender-based violence program can be completed by non-degree students as a stand-alone graduate certificate. The gender-based violence program of study provides an interdisciplinary perspective on crime, the formulation of laws and codes, and the criminal legal system and its intersection with gender and violence. Students pursuing the gender-based violence concentration must complete a total of 15 semester hours via intensive in-person and online hybrid courses that meet periodically throughout a two-year period.

Requirements

Students take the four specified courses below and one elective.

- PUAD 5910 - Nature and Scope of Interpersonal Violence
- PUAD 5920 - The Psychology of Interpersonal Violence
- PUAD 5930 - Interpersonal Violence Law and Policy
- PUAD 5940 - Interpersonal Violence Leadership, Advocacy, and Social Change

Total: 15 Hours

Geographic Information Science Graduate Certificate

► Graduate School Policies and Procedures apply to this program.

GISci Certificate Advisor: Matt Cross

E-mail: matthew.cross@ucdenver.edu

The Geographic Information Science (GISci) Certificate in the Department of Geography and Environmental Sciences is designed to provide CU Denver undergraduates and graduates, as well as non-degree seeking students interested in professional development, with proficiency in the application of spatial thinking, geographic information science, and geo-technologies in the social and physical sciences, spanning the natural, built and human environments and emphasizing human-environment interconnections. The GISci Certificate core establishes a broad foundation in spatial technologies and methodologies, including geographic information systems, remote sensing, cartography, spatial extensions to database management systems, and statistics. From this base, students can delve into various specialization areas depending on their interests.

Upon successful completion of the certificate, students will be able to:

- articulate and apply basic theoretical underpinnings of spatial analytical principles, methodologies, and techniques;
- effectively utilize at least three different types of software used for spatial analysis;
- apply geo-spatial thinking, geographic information science, and geo-technologies appropriately; and
- analyze diverse real-world problems that have a spatial dimension and develop alternative solutions to them.

Eligibility

Geographic information science and geo-technologies have broad applications across many disciplines. Students who already hold a bachelor's degree from CU Denver or other institutions in any major may be admitted as a CU Denver graduate student or a non-degree-seeking student, depending on enrollment status.

You must complete the Application for GISci Certificate, which can be obtained from the GISci Certificate Coordinator. The application requires copies of former transcripts indicating that an undergraduate degree has been previously granted or an unofficial transcript from CU Denver showing that you are a current undergraduate or graduate student. This application is required to be formally registered in the GISci Certificate program, and must be completed no later than the semester prior to the scheduled completion of the certificate. Click here for the GISci form.

Current CU Denver Students

A student may begin the program in any semester or during the summer by making arrangements with the GISci Certificate Coordinator. This should be done as soon as you have decided to pursue the certificate, and no later than the semester previous to completion of all the courses required to obtain the certificate.

Former CU Denver Students or Graduates of Other Universities

In order to start the certificate program, you will need to apply to the university as a non-degree seeking student if you are not already enrolled in a graduate program within CU Denver. Once accepted, you will be able to enroll in all of the appropriate classes.

Admissions: <http://www.ucdenver.edu/admissions/non-degree/Pages/default.aspx>.

Current Tuition Rates:<http://www.ucdenver.edu/student-services/resources/CostsAndFinancing/Pages/CostsandFinancing.aspx>.

Specific questions about enrollment or tuition should be addressed directly to the University Registrar's Office.

PROGRAM EXPECTATIONS

To earn the certificate, students must complete a specific set of geospatial classes. Because a certificate is a CU Denver certification of a students' specialized knowledge in an advanced subject matter, all courses in a certificate program are expected to be taken in residency at CU Denver. Only in rare circumstances will exceptions be made regarding this policy. Courses taken within the GISci Certificate Program may be used towards one other degree requirement. Any changes to the standard curriculum program must be approved in writing by the GISci Certificate Coordinator and filed with the Application for GISci Certificate. Please pay close attention to prerequisites for specific courses.

PERFORMANCE EXPECTATIONS

Students must earn a 3.0 GPA average with no course below a "B-" in all approved courses for the certificate. For graduate and non-degree seeking students, the certificate will be awarded upon completion of the program and be added to the student's transcript.

Course Requirements

As a graduate or graduate-non-degree student at CU Denver, the requirements for the GISci Certificate are four core classes and two electives, totaling 18 hours. All classes must be taken at the graduate level (5000 or above) to fulfill the requirements of the Graduate GISci Certificate. It is assumed that graduate students have some prior knowledge in basic mapping skills, therefore GEOG 2080 is not required. All core classes are required for completion of the GIS Certificate and are offered at least on a yearly basis. The statistics course requirement can be filled by enrolling in the GEOG 5050 Applied Spatial Statistics, or one of several graduate level (5000 or above) classes offered by CU Denver and approved by the certificate coordinator. There is a prerequisite requirement of a basic statistics class taken at the undergraduate college level prior to taking any graduate level statistics class at CU Denver. Any additional two electives can be taken from the elective list. If you are currently a graduate student at CU Denver and also attended CU Denver as an undergraduate, you may apply only one 3 credit hour undergraduate course (4000 level) to the GISci Certificate. The required classes are as follows:

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 5050 - Applied Spatial Statistics
 - GEOG 5060 - Remote Sensing I: Introduction to Environmental Remote Sensing
(May also take as GEOL 5060)
 - GEOG 5080 - Introduction to GIS
 - GEOG 5081 - Cartography and Computer Mapping
- OR** equivalent course approved by the GISci Certificate Coordinator

Total: 12 Hours

Elective (choose two from the following):

- GEOG 4086 - FOSS4G Systems Integration
 - GEOG 5070 - Remote Sensing II: Advanced Remote Sensing
(May also take as GEOL 5070)
 - GEOG 5085 - GIS Applications for the Urban Environment
 - GEOG 5090 - Environmental Modeling with Geographic Information Systems
 - GEOG 5091 - Open Source Software for Geospatial Applications
 - GEOG 5092 - GIS Programming and Automation
 - 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: Michael Hinke (Co-coordinator)

Telephone: 303-556-4172

E-mail: michael.hinke@ucdenver.edu

Contact: Austin Troy (Co-coordinator)

Telephone: 303-315-1006

Email: austin.troy@ucdenver.edu

Geospatial Information Science (GIS), known to some as "computer mapping," addresses the storage, management, analysis, synthesis, and display of spatial data and information. In the College of Architecture and Planning we use GIS to analyze and understand space, to answer the place-based questions posed by our stakeholders and our clients, and to create the planning- and research-oriented maps that are critical to communicating with stakeholders. Our work with GIS in the college is built on the many advances in Geospatial Information Science over the last 40 years.

This certificate program is intended for motivated people with a strong interest in the application of GIS to the design and planning professions. It is targeted both at students currently enrolled in a University of Colorado degree program who wish to add a credential to their degree, and working professionals who do not wish to enroll as degree students, but who wish to pursue a certificate to improve job skills.

Students who earn this Certificate through the College of Architecture and Planning at the University of Colorado Denver will exit the program with the following:

- An understanding of GIS theory and concepts
- Technical mastery of general GIS methods using ArcGIS, as well as familiarity with remote sensing
- Familiarity with common public geospatial data sources, as well as metadata standards
- Knowledge of data interoperability, including how to move data and maps from one software platform to another; examples of software include Adobe Creative Suite, 3D Studio Max, SketchUp, RhinoTerrain, ArcMap, and Quantum GIS
- Specialized skills in geospatial technologies and methods related to the design and planning professions, including rendering and visualizations, infrastructure and transportation network analysis, cadastral mapping, site selection and analysis, geodesign, and many others

GIS is a rapidly growing field and an increasingly important job skill. GIS skills are showing up as requirements for architects, landscape architects and planners. Our GIS Certificate holders are currently working as: environmental planners, transportation planners, city planners, urban designers, landscape architects, and software developers.

A minimum of a 3.0 GPA in all GIS related course work is required to earn the GIS Certificate.

Course Requirements: 18 semester hours

Part 1: Introductory GIS class (3 semester hours)

- URPL 6250 - GIS Analysis
- LDAR 5540 - Introduction to GIS
- URPL 6800 - Special Topics: Urban and Regional Planning - Introduction to GIS

Part 2: Advanced GIS methods class (3 semester hours)

- URPL 6260 - Advanced Geo-Spatial Methods

Part 3 (3 semester hours)

For Planning and Design Track: Remote Sensing

- GEOG 5060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 5070 - Remote Sensing II: Advanced Remote Sensing
- OR-
- Boulder: GEOG 5093 - Remote Sensing of the Environment

For Landscape Architecture Track: Computer aided design

- LDAR 6642 - Landscape Architecture Digital Design Workshop
- LDAR 6840 - Independent Study

Part 4: Specialized advanced classes (9 semester hours)

- GEOG 5081 - Cartography and Computer Mapping
- GEOG 5085 - GIS Applications for the Urban Environment
- GEOG 5090 - Environmental Modeling with Geographic Information Systems
- GEOG 5091 - Open Source Software for Geospatial Applications
- GEOG 5092 - GIS Programming and Automation
- GEOG 5095 - Deploying GIS Functionality on the Web
- GEOG 5230 - Hazard Mitigation and Vulnerability Assessment
- CVEN 5382 - GIS Spatial Database Development
- CVEN 5385 - GIS Relational Database Systems
- CVEN 5800 - Special Topics - Geomatics for GIS
- LDAR 6686 - Special Topics: Landscape Architecture - Advanced Topics in GIS
- Any course from the Part 3 list (either track) not already used to fulfill the Part 3 requirement
- For degree-seeking students, up to 3 semester hours from a studio course where intensive GIS is used. Student must submit a petition to the coordinators prior to the start of the semester, describing the GIS activities undertaken.
- Up to 3 semester hours for an internship using GIS in a planning or design context, also by petition. Please see the coordinators before starting the process of looking for an internship.
- Other relevant courses by permission

Part 5: Portfolio

- A digital portfolio of GIS-related work completed for work undertaken in classes in the College of Architecture and Planning is required as part of the completion of the GIS Certificate.
- Requirements for the portfolio will be made available to students when they sign up for the GIS Certificate.

Note: Students pursuing the GIS Certificate in the College of Architecture and Planning are expected to use GIS data and software in their design and planning related classes.

Eligibility and Application

The certificate program is open to all. Applicants already enrolled in a University of Colorado degree program need only submit an internal application to the CAP GIS certificate program. Applicants who are not currently enrolled in a degree program must apply to CU Denver as non-degree seeking students and also submit an application to the CAP GIS certificate program. More details on the process are available from the coordinator.

Students who have completed all of the requirements for the GIS Certificate must submit their GIS Certificate form at the start of the semester that they plan to graduate.

CAP GIS Certificate and the Workforce Innovation and Opportunity Act

The CAP GIS Certificate is listed on the eligible training provider list managed by the State of Colorado under the Federal Workforce Innovation and Opportunity Act (WIOA) of 2014. Students who are interested in pursuing the GIS Certificate in the College of Architecture and Planning and would like to apply for WIOA dollars should contact their local workforce center to find out if they are eligible.

Historic Preservation Graduate Certificate

Graduate Certificate in Historic Preservation

The University of Colorado Denver Graduate Certificate in Historic Preservation, an interdisciplinary collaboration between the College of Architecture and Planning and the History Department, is awarded by the History Department. The Certificate Program is open to any qualified graduate student or non-degree seeking student with a bachelor's degree.

The certificate provides CU Denver students and the wider community with foundational knowledge and skills in Historic Preservation, a field that enhances studies and professional work in areas such as architecture, heritage tourism, historic preservation, national park interpretation, public history, urban studies and related fields.

The certificate can stand on its own, can complement a graduate program in Architecture, History, or Urban Planning; or can serve as a beginning to graduate studies. It can also be a stepping stone to further work in Historic Preservation with the College of Architecture and Planning's Masters of Science in Historic Preservation.

Applicants must have a B.A. or B.S. degree.

Interested students must register their intent to complete the Certificate with the Director of the Public History & Preservation Program, CU Denver History Department. Students already enrolled in a graduate program at CU Denver can begin their Certificate work at any point during their studies. Non-degree students must apply to the university as a non-degree seeking student.

All certificate coursework for History students must be approved by the History Department's Historical Preservation advisor, Prof. Tom Noel (tom.noel@ucdenver.edu). CAP students must work with CAP Historic Preservation advisor, Prof. Chris Koziol (christopher.koziol@ucdenver.edu).

The History Department expects that all courses in the certificate program will be taken in residency at CU Denver. Students must maintain a 3.0 GPA, and no course below B- will count towards the certificate.

Graduate students in the History Department can count courses for both their major or minor fields and the requirements for the certificate.

Certificate in Historic Preservation: 18 credits

Required Courses (6 hours):

- HIST 5232, Historic Preservation or HIST 6989, Historic Preservation Seminar (listed as a topics course - check for the title) (3 credits) One of these courses is offered once a year by the History Department
- HIPR 6010 Preservation Theory and Practice (3 credits) This course is offered every fall by the College of Architecture & Planning

Optional Courses (to complete the 18 credit hours required). These remaining 12 credit hours should be distributed so that at least 3 hours are from each of the two participating colleges, CLAS and CAP, and hence, no more than 9 hours from the other. Be sure to consult your preservation advisor (Profs. Koziol or Noel) on your course selection.

- HIST 6950, History Thesis Project (3 credits) or HIST 6952 Public History Project related to preservation (3 credits)
- HIST 5939, Heritage Tourism (3 credits)
- HIST 5939 or HIPR 6930 Internship (3 credits)
- HIST 5229, Colorado Historical Places (3 credits) HIST 6989, Historic Preservation Seminar (3 credits)
- HIST 5240, National Parks History (3 credits)
- HIST 5228, Western Art & Architecture (3 credits)
- ARCH 6210, History of American Architecture (3 credits)
- ARCH 6212, History of Modern Architecture (3 credits)
- HIPR 6110, Regionalism(s) & Vernacular in Context (3 credits)
- HIPR 6210, Survey, Significance, and Recognition (3 credits)

Admissions Requirements

1. Applicant must have a B.A. or B.S. Degree
2. Applicant applies to the Director of the Public History & Preservation Program, CU-Denver History Department
3. Applicants must provide a transcript, statement of purpose, and two letters of recommendation

Integrated Construction, Management + Leadership Graduate Certificate

Contact:

Business School: Linda Brooker
303.315.8200
linda.brooker@ucdenver.edu

College of Engineering and Applied Science | Civil Engineering: Roxanne Pizano
303.556.2871
roxanne/pizano@ucdenver.edu

College of Architecture and Planning: Leo Darnell
303-315-1015
leonard.darnell@ucdenver.edu

The colleges of Architecture and Planning, Engineering and Applied Science, and the Business School at the University of Colorado Denver have formed a partnership to create an innovative and interdisciplinary leadership program. The Integrated Construction, Management and Leadership (ICML) Certificate is a four-course certificate designed to launch designers, architects, engineers, and business entrepreneurs into the world of construction or rapidly update an existing skill-set.

All classes are held in the Liniger Building at CU South Denver, located east of Interstate 25 on Lincoln Avenue in Parker, Colorado. Go to the CU South Denver website to see the class schedule.

As disciplinary identities, project boundaries, and conventional markets blur, leadership, management skills, and civic mindfulness are key aspects to successfully navigating a rapidly transforming 21st century built environment. Many new ideas are emerging involving how projects are conceived and delivered that better integrate the complex relationships among finance, marketing, design, and construction. These new interdisciplinary management and construction techniques streamline the construction of increasingly large-scale and complex projects. Leadership skills are necessary for success in the central activities of contemporary engineering, architectural design firms, business, government, and non-profits. The demands of project management in firms today involve more than a specific technical expertise in a given field. Firms need creative individuals who can effectively innovate, execute, and communicate across disciplines. This new certificate program capitalizes on these changes and the new opportunities they present.

ICML is an interdisciplinary program designed for working or aspiring professionals, and upper level students interested in expanding their knowledge base in the fields of engineering, architecture, business, and their intersections. The courses include introductions to and explorations of current trends in the construction industry, project management and building information modeling (BIM). The final course is an integrated course that brings together top executives in the architecture, engineering and construction (AEC) business to discuss current industry topics and provides students an opportunity to apply principles from the various fields to case study projects.

- Students can earn graduate level credit for each course they successfully complete and the ICML Certificate upon completion of all four courses.
- They can take the courses as a non-degree student or while enrolled in a degree program at the University of Colorado Denver.
- The courses can be used to partially fulfill requirements for the MEng in Construction Engineering and Management or other eligible graduate programs such as the Master of Architecture degree upon acceptance into these programs.
- Approved courses in this Certificate may also count toward related Certificates offered by the Business School and Construction Engineering and Management.

Certificate Requirements

Four courses totaling 12 semester hours:

- ARCH 6420 - Integrated Practice & BIM Technology
- BANA 6650 - Project Management
- CVEN 5235 - Advanced Construction Engineering
- CVEN 5238 - Integrated Construction Leadership

If these courses are not offered in a given semester with permission other courses with similar scope and level may be substituted.

Total: 12 Hours

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. CIVHC is a program of the Center on Domestic Violence in CU Denver's School of Public Affairs, developed 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 interpersonal violence in health care settings
- Thorough understanding of the health ramifications of interpersonal violence
- Skill and comfort with screening all patients for interpersonal 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.

Four courses are required for completion of this certificate. Please contact the Director of the Center on Domestic Violence at barb.paradiso@ucdenver.edu for more information.

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 - Public Budgeting and Finance
 - 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 Organizations Graduate Concentration/Certificate

The graduate concentration in Nonprofit Organizations is available as a concentration within both the MPA and MCJ degree, or as a stand-alone certificate for non-degree students. This program prepares students to become innovative and critical thinkers in the areas of nonprofit organizational management and public policy, with a unique approach that bridges theoretical knowledge with real-world experience. As 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. Graduates are able to span 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.

Requirements

Students take two required courses as well as three electives approved by the concentration advisor, for a total of 15 hours.

- PUAD 5110 - Seminar in Nonprofit Management
- PUAD 5140 - Nonprofit Financial Management

Post-Graduate Certificates

The Business School's post-graduate certificates are primarily intended for professionals in the community with a master's degree, in any business discipline, from an AACSB accredited institution. These certificates are offered in a variety of specialized business areas from Business Analytics to Information Systems. The courses are designed to allow individuals that are already in the business community to bring their skills up to date - or to explore a new area of business that interests them.

Students are required to complete four graduate courses in order to receive a post-graduate certificate. Students can pursue one of our post-graduate certificates, even if they are not CU Denver students. Credit earned as a part of the certificate DOES count towards a second graduate business degree, should you choose to expand your knowledge further with one of our complete MS or MBA degrees.

We currently offer post-graduate certificates in:

- Bioinnovation and Entrepreneurship
- Business Intelligence
- Business Strategy
- Change Management
- Commodities
- Digital Health Entrepreneurship
- Enterprise Risk Management
- Enterprise Technology Management
- Entrepreneurship
- Finance
- Health Information Technology
- Human Resources Management
- Information Systems
- International Business
- Leadership
- Managing for Sustainability
- Marketing
- Risk Management and Insurance
- Sports and Entertainment Management
- Technology Innovation and Entrepreneurship
- Web and Mobile Computing

Some of the post-graduate certificates require prior knowledge in the area being studied, Please contact an advisor for specific courses and requirements for the post-graduate certificates.

Public, Nonprofit and Community Leadership Graduate Certificate

Introduction

Please click [here](#) to see Political Science department information.

The Public, Non-Profit and Community Leadership Graduate Certificate is offered in two different formats: the traditional, on-campus format, and the New Directions weekend classes format, with classes offered in CU Denver

facilities south of Denver (either at the Liniger Building in Parker, or at Fort Lewis College in Durango). Students can choose either of these two pathways to complete the certificate.

Public, Non-Profit and Community Leadership Graduate Certificate: On-Campus Pathway

The CU Denver Political Science Department's Public, Non-Profit and Community Leadership Certificate engages students in a focused curriculum in the community organizing and development field, including field placements in internships with local community partners. The program curriculum is anchored around the study and practice of local civic engagement, especially in traditionally marginalized communities. Students will be connected to meaningful work and networking opportunities in those communities, through community-based coursework, internships and service-learning opportunities. The certificate program provides critical education and effective skills-based training for students seeking careers in community organizing and development, as well as for students seeking more active citizenship and civic engagement. Students will be prepared to become change agents in their communities, while developing possible career paths in community-based advocacy/service organizations, public agencies, or international development work.

Curriculum and Credit Requirements: On-Campus Pathway

The graduate certificate requires four "public leadership" courses (12 credits), which must include PSCI 5914 - Community Development and an appropriate field study (internship) course (with the default course being PSCI 5944 - CU in the City).

Required Public Leadership Courses (6 credits)

- PSCI 5914 - Community Development

Field Placement Requirement, fulfilled by ONE of the following courses:

- PSCI 3914 - The Urban Citizen
- PSCI 5944 - CU in the City
- PSCI 5939 - Internship (including opportunities in the Colorado State Legislature)

Elective Public Leadership Courses (6 credits)

- PSCI 5025 - Local Governance and Globalization
- PSCI 5094 - Seminar: Urban Politics
- PSCI 5024 - State Politics: Focus on Colorado
- PSCI 5206 - Social Movements, Democracy and Global Politics
- PSCI 5265 - Social Justice And Globalization
- PSCI 5274 - Conflict Resolution and Public Consent Building
- PSCI 5324 - Politics, Public Policy and Leadership
- PSCI 5414 - Organizational Change Agents
- PSCI 5555 - International Women's Resistance
- PSCI 5008 - Graduate Topics in Political Science (when relevant and approved by Program Advisor)
- PSCI 5840 - Independent Study: PSCI (when relevant and approved by Program Advisor)

- Public Leadership Course credits may also be earned through study abroad in the Sustainability in Berlin program (3 credits) or the Development in East Africa program (3 credits).

Public, Non-Profit and Community Leadership Graduate Certificate: Center for New Directions Weekend Pathway

The Center for NEW DIRECTIONS in Politics and Public Policy offers a formally transcribed graduate certificate in Public, Nonprofit, and Community Leadership to meet the needs of individuals in formal public and nonprofit positions that require development of their leadership competencies and for individuals in informal community leadership positions who want to build their knowledge, skills, and effectiveness. This certificate will help human resources directors in local governments and nonprofit organizations who are seeking additional leadership development for the department heads and other individuals they want to groom for succession to leadership. The certificate is open to non-degree seeking students (with or without an undergraduate degree) as well as students formally admitted to the MA in Political Science and to upper division undergraduates seeking to get a head start on their graduate studies.

The certificate can be earned entirely through classes offered in a weekend format.

Students who successfully complete the certificate program would be allowed to transfer in the credits received in the certificate program to complete the Master's Degree in Political Science with emphasis in Politics and Public Policy offered through the Center for NEW DIRECTIONS in Politics and Public Policy in the Political Science Department at the University of Colorado Denver. Transfer of credits would follow completion of the formal application for admission and follow the established review for acceptance of transfer credits.

Prospective students for programs other than the MA in Political Science with emphasis in Politics and Public Policy should verify with their proposed graduate program to determine the number of credit hours that may be accepted for transfer credit for other MA degrees.

Curriculum and Credit Requirements: New Directions Weekend Pathway

9 credit hours must be successfully completed with a grade of B- or better. All courses are currently offered in the extended studies weekend format at the Liniger Building in Parker and on the Fort Lewis College campus in Durango, CO.

Required Courses

Take both of the courses below:

- PSCI 5324 - Politics, Public Policy and Leadership
- PSCI 5644 - Ethical Responsibilities of Leaders

Elective Courses

Take one of the courses below:

- PSCI 5009 - Politics of the Budgetary Process
- PSCI 5084 - Local Government and Administration

- PSCI 5274 - Conflict Resolution and Public Consent Building
- PSCI 5374 - Public Priorities for the 21st Century
- PSCI 5414 - Organizational Change Agents

*Please note, required courses will be offered every year. Some combination of elective courses will be offered each year to assure sufficient choice for certificate completion in that year.

Admissions and Declaring This Certificate

Any student wishing to declare this certificate should schedule a certificate advising appointment with either the Department Chair, the Department Undergraduate Advisor, or the NEW DIRECTIONS office in order to register their intent to pursue the Community Leadership Certificate and to develop a curriculum plan.

Individuals who are not currently admitted students seeking the graduate Public, Nonprofit, and Community Leadership Certificate would use the "quick admit" feature online or the extended studies admissions form previously developed by the College of Liberal Arts and Sciences.

Students requesting admission to the MA in Political Science program would need to complete the application for admissions (undergraduate or graduate, respectively) and be formally admitted by the department (and Graduate School for prospective graduate students) prior to requesting transfer of their certificate credits for their degree program. Please note: completion of the Graduate Certificate in Public, Nonprofit, and Community Leadership does not obligate the individual to pursue further education. The Certificate can be earned as a stand-alone University certificate, or it can be applied to a current or future degree program.

Currently admitted upper division undergraduates should schedule certificate advising appointments with the NEW DIRECTIONS office to register their intent to pursue the Public, Nonprofit, and Community Leadership Certificate. Then they may register for classes as usual.

Risk Management and Insurance Certificate

The Business Schools undergraduate certificates are primarily intended for students currently pursuing a degree in any undergraduate discipline that want to expand their business knowledge to give themselves a leg up when they enter the work force. However, they can also be taken by students with only a high school diploma.

Students can pursue one of our undergraduate certificates, even if they are not CU Denver students. Credit earned as a part of the certificate DOES count towards your undergraduate degree, should you choose to pursue a degree here. One such certificate is our Risk Management and Insurance Certificate. Information for that certificate is below:

Broaden your knowledge of Risk Management and Insurance (RMI) by completing a one-year Certificate in RMI Studies from the University of Colorado Denver. By completing three semester-long RMI courses, all available online, and meeting prior finance course requirements, you will be on your way to enhancing your personal knowledge and providing your employer with RMI awareness and professional skills. See the Risk Management and Insurance Certificate page for more information.

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 - Scientific Instrumentation
 - 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 - Scientific Instrumentation
 - 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

Strategic Communication Graduate Certificate

- Graduate School Policies and Procedures apply to this program.

Strategic Communication 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 Strategic Communication is designed to provide students with the principles and theories that guide the work of public relations practitioners in commercial, public and nonprofit contexts.

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's 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 coursework required for the master's degree.

Recipients of the Undergraduate Certificate in Strategic Communication are ineligible to complete this certificate.

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 Strategic Communication after the completion of the required courses. To apply, students must complete the certificate application, attach it to an unofficial transcript, and return it to Dr. Hamilton Bean in room 3010 of the Student Commons 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 after final grades are posted for the semester.

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.

Additional information about the Graduate Certificate in Strategic Communication may be obtained from Dr. Hamilton Bean, Department of Communication, Student Commons Building, 1201 Larimer Street, Suite 3010, 303-315-1909, Hamilton.Bean@ucdenver.edu.

Certificate Requirements

The Graduate Certificate in Strategic Communication requires 12 semester hours (four courses):

- COMM 5051 - Advanced Strategic Communication
- COMM 5240 - Organizational Communication
- COMM 5939 - Internship
- An elective at the graduate level from the College of Arts & Media, School of Business, the School of Public Affairs, or the Anschutz Medical Campus. The elective must be approved in consultation with the Department of Communication.

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. Requests for approval for substitute courses, including an explanation for the substitution, must be made in writing to Dr. Hamilton Bean.

Sustainability Certificate

The Business Schools graduate certificates are primarily intended to give individuals with an undergraduate degree in any discipline access to business courses that can help them succeed in their current job or even help them launch their own company.

Students can pursue one of our graduate certificates, even if they are not CU Denver students, without taking the GMAT. Credit earned as a part of the certificate DOES count towards your graduate business degree, should you choose to pursue a degree here. Listed below is information on one such certificate.

The Managing for Sustainability Certificate is designed for business professionals seeking a deeper understanding of sustainability and/or the technical knowledge to lead sustainability initiatives in their companies. To earn a Managing for Sustainability Certificate, students complete four semester-long graduate Business School courses. Two of the courses provide a foundation in sustainable business practices then, students select their remaining two certificate classes covering such specialized areas as finance, marketing, accounting, and social entrepreneurship. See the Managing for Sustainability Certificate page for more information.

Sustainable Urban Agriculture Graduate Certificate

Certificate Advisor: Amanda Weaver

E-mail: amanda.weaver@ucdenver.edu

Introduction

Please [click here](#) to see Geography and Environmental Sciences Department information.

The goal of the certificate program is to provide GES students advanced training in sustainable urban agriculture through the integration of university classroom study and field-based practicum conducted at the department's field research station. Requirements for the certificate are therefore divided between on-campus courses and field courses.

Upon successful completion of the certificate, students will:

- Have knowledge of the history of urban farming
- Understand the modern agro-food system
- Participate in sustainable urban agricultural practices

Program Delivery

This is both an on-campus and field-based program.

Declaring This Certificate

- Please see the Certificate advisor.

General Requirements

- [Click here](#) for information about Academic Policies.

Eligibility

Sustainable Urban Agriculture has broad applications across many disciplines. Students who already hold a bachelor's degree from CU Denver or other institutions in any major may be admitted as a CU Denver graduate student or a non-degree-seeking student, depending on enrollment status.

Current CU Denver Students

A student may begin the program in any semester or during the summer by making arrangements with the Certificate advisor. This should be done as soon as you have decided to pursue the certificate, and no later than the semester previous to completion of all the courses required to obtain the certificate.

Former CU Denver Students or Graduates of Other Universities

In order to start the certificate program, you will need to apply to the university as a non-degree seeking student if you are not already enrolled in a graduate program within CU Denver. Once accepted, you will be able to enroll in all of the appropriate classes.

Admissions: <http://www.ucdenver.edu/admissions/non-degree/Pages/default.aspx>.

Current Tuition Rates:<http://www.ucdenver.edu/student-services/resources/CostsAndFinancing/Pages/CostsandFinancing.aspx>.

Specific questions about enrollment or tuition should be addressed directly to the University Registrar's Office.

PROGRAM EXPECTATIONS

Because a certificate is a CU Denver certification of a students' specialized knowledge in an advanced subject matter, all courses in a certificate program are expected to be taken in residency at CU Denver. Only in rare circumstances will exceptions be made regarding this policy. Courses taken within the Sustainable Urban Agriculture Certificate may be used towards one other degree requirement. Any changes to the standard curriculum program must be approved in writing by the Certificate advisor. Please pay close attention to prerequisites for specific courses.

PERFORMANCE EXPECTATIONS

Students must earn a 3.0 GPA average with no course below a "B-" in all approved courses for the certificate. For graduate and non-degree seeking students, the certificate will be awarded upon completion of the program and be added to the student's transcript.

Certificate Requirements

As a graduate or graduate-non-degree student at CU Denver, the requirements for the Sustainable Urban Agriculture Certificate are two core classes and four electives, totaling 18 hours. All classes must be taken at the graduate level (5000 or above) to fulfill the requirements of the Certificate.

Take **all** of the following courses (6 credit hours):

- ENVS 5450 - Urban Food and Agriculture: Perspectives and Research

- ENVS 5460 - Sustainable Urban Agriculture Field Study I

Take **four** of the following elective courses (12 credit hours):

- ENVS 5470 - Sustainable Urban Agriculture Field Study II
- GEOG 5060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 5085 - GIS Applications for the Urban Environment
- GEOG 5335 - Contemporary Environmental Issues
- GEOG 5640 - Urban Geography: Denver and the U.S.
- GEOG 5680 - Urban Sustainability: Perspectives and Practice
- GEOG 5939 - Internship (a sustainable agriculture internship with a local food/ urban agriculture community organization)

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 Policies and Procedures 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, which can be completed through CU Online, 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 5601 - Principles and Practices of Second Language Acquisition
- ENGL 5651 - Second Language Writing

Total: 9 Hours

Elective Courses

- ENGL 5093 - Teaching of Writing
- An alternative elective such as a special topic course (i.e., ENGL 5190 Special Topics in Rhetoric and Writing) approved by the program advisor.
- An internship (ENGL 5939 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 600. Those who score below 600 but above 500 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.

Water Resources Engineering for Urban Watershed Management Graduate Certificate

The Certificate of Water Resources Engineering for Urban Watershed Management is for students who seek an interdisciplinary curriculum in the field of hydrologic and hydraulic engineering to analyze water-related problems and to obtain knowledge pertaining to applied hydrology, flood channel design, urban runoff modeling, flood mitigation and floodplain management. To earn the certificate, applicants must already have a baccalaureate degree and complete four core courses offered in the Hydrology and Hydraulics Graduate Engineering Program or equivalent continuing education courses equaling 12 semester hours of work. Applications for this certificate shall be submitted for the Hydrology and Hydraulics Graduate Engineering Program for approval. Call the Department of Civil Engineering at 303-556-2871 for more information.

Women's and Gender Studies Graduate Certificate

► Graduate School Rules apply to this program.

The Women's and Gender Studies Graduate 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 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
- HIST 5306 - Survey of Feminist Thought
- -OR- WGST 5306 - Survey of Feminist Thought
- ENGL 5308 - Contemporary Feminist Thought
- -OR- WGST 5308 - Contemporary Feminist Thought
- HIST 5303 - Sex and Gender in Modern Britain
- -OR- WGST 5303 - Sex and Gender in Modern Britain
- HIST 5307 - History of Sexuality
- -OR- WGST 5307 - History of Sexuality
- HIST 5345 - Gender, Science, and Medicine: 1600 to the Present
- -OR- WGST 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 5245 - Gender, Globalization and Development
- -OR- WGST 5248 - Gender, Globalization and Development
- PSCI 5555 - International Women's Resistance
- -OR- WGST 5555 - International Women's Resistance
- PUAD 5910 - Nature and Scope of Interpersonal Violence
- PUAD 5920 - The Psychology of Interpersonal Violence
- PUAD 5930 - Interpersonal Violence Law and Policy

- 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

Total: 9 Hours

For more information about this certificate program, contact the Women's and Gender Studies Director, Gillian Silverman, 303-556-4529.

Courses

Catalog Course Definitions

Core - Course is approved for specific core curriculum (i.e. arts and sciences curriculum; quantitative reasoning and mathematical skills)

Cross-Listed – Class that is offered along with another class that has the same topic, title, and course content. Max Hours displayed for each cross-listed class is the total number of hours allowed for all courses completed within a particular cross-listed group. *See below for more information on Max Hours.*

Gt - Course is approved by the Colorado Dept of Higher Education for statewide guaranteed transfer as part of the gtPathways program.

Max Hours (in Course Description) - Total number of applicable credit hours that count toward a student's degree for a particular course or cross-listed group.

Requisite:

- **Prerequisite** - Specific course completed or “in progress” (i.e. ENGL 1020 or ENGL 1020 with C- or higher)
- **Corequisite** – Specific course taken at the same time (i.e. BIOL 2071 taken same time as BIOL 2051)
- **Restriction** – Restricted to a specific population (i.e. Restricted to MUSC majors or junior standing, etc.)

Course Number Definitions:

- 1000 - 4999 Undergraduate Level
- 5000 - 9999 Graduate Level

Access-Counsel Psych/Counsel

ACPC 5110 - Group Counseling

ACPC 5400 - Career Development

ACPC 5820 - Strategies in Agency Counseling

Accounting

ACCT 2200 - Financial Accounting and Financial Statement Analysis

ACCT 2220 - Managerial Accounting and Professional Issues

ACCT 2550 - Introductory Accounting for Entrepreneurs and the Arts

ACCT 3220 - Intermediate Financial Accounting I

ACCT 3230 - Intermediate Financial Accounting II

ACCT 3320 - Intermediate Cost Accounting

ACCT 3939 - Internship

ACCT 4030 - Financial Accounting

ACCT 4054 - Accounting Systems and Data Processing

ACCT 4070 - Management Accounting

ACCT 4240 - Advanced Financial Accounting

ACCT 4280 - Professional Judgment and Ethical Decisions in Account

ACCT 4282 - Capitalism, Accounting and Ethical Choices

ACCT 4330 - Managerial Accounting Problems and Cases

ACCT 4370 - International Accounting

ACCT 4410 - Income Tax Accounting

ACCT 4490 - Experiential Learning

ACCT 4520 - Oil and Gas Accounting

ACCT 4620 - Auditing Theory

ACCT 4625 - Auditing Practice

ACCT 4780 - Accounting and Information Systems Processes and Controls

ACCT 4800 - Accounting for Government and Nonprofit Organizations

ACCT 4840 - Independent Study

ACCT 4900 - Professional Certification in Accounting

ACCT 4900 - Professional Certification in Accounting

ACCT 4915 - Accounting for the Public Interest

ACCT 4950 - Special Topics

ACCT 5939 - Internship

ACCT 6015 - Accounting for the Public Interest

ACCT 6020 - Auditing Theory

ACCT 6024 - Advanced Financial Accounting

ACCT 6025 - Auditing Practice

ACCT 6030 - Financial Accounting

ACCT 6033 - Advanced Managerial Accounting

ACCT 6054 - Accounting Systems and Data Processing

ACCT 6070 - Management Accounting

ACCT 6080 - Accounting for Government and Nonprofit Organizations

ACCT 6140 - Tax Planning for Managers

ACCT 6220 - Controllership: Financial Strategy and Controls

ACCT 6225 - Controllership: Managerial Strategy and Benefits Analy

ACCT 6230 - Advanced Topics in Mergers and Acquisitions

ACCT 6250 - Seminar: Financial Accounting

ACCT 6260 - Seminar: Managerial Accounting

ACCT 6280 - Professional Judgment and Ethical Decisions in Accounting

ACCT 6282 - Capitalism, Accounting and Ethical Choices

ACCT 6285 - Accounting and Finance for Sustainability

ACCT 6290 - Management Control Systems

ACCT 6320 - White Collar and Financial Crimes

ACCT 6330 - Fraud Auditing

ACCT 6340 - Financial Statement Analysis

ACCT 6350 - Current Issues in Professional Accounting

ACCT 6360 - Fraud Examination

ACCT 6370 - International Accounting

ACCT 6380 - Forensic Accounting

ACCT 6470 - Internal Auditing

ACCT 6490 - Experiential Learning

ACCT 6510 - Accounting and Information Systems Processes and Controls

ACCT 6520 - Issues in Oil and Gas Accounting

ACCT 6620 - Advanced Auditing

ACCT 6800 - Special Topics

ACCT 6840 - Independent Study

ACCT 6900 - Professional Certification in Accounting

ACCT 6900 - Professional Certification in Accounting

ACCT 6939 - Internship/Cooperative Education

ACCT 6950 - Master's Thesis

MTAX 6482 - Advanced Partnership Taxation

Anthropology

ANTH 1000 - Anthropology: Past and Present

ANTH 1111 - Freshman Seminar

ANTH 1302 - Introduction to Archaeology

ANTH 1303 - Introduction to Biological Anthropology

ANTH 2102 - Culture and the Human Experience

ANTH 2400 - Video and Social Change

ANTH 2840 - Independent Study

ANTH 2939 - Internship

ANTH 3000 - Globalization, Migration and Transnationalism

ANTH 3006 - Sustainable Development and Equity

ANTH 3008 - Contemporary World Problems: An Anthropological Perspective

ANTH 3042 - Lost Worlds and Crystal Skulls

ANTH 3045 - Cannabis Culture

ANTH 3045 - Cannabis Culture

ANTH 3101 - Foundations of Cultural Anthropology

ANTH 3121 - Language, Culture, and Communication

ANTH 3142 - Cultural Diversity in the Modern World

ANTH 3150 - Special Topics in Medical Anthropology

ANTH 3200 - Human Migration: Nomads, Sojourners, and Settlers

ANTH 3202 - Anthropology of Health Care Policy

ANTH 3210 - Urban Food Systems and Sustainability

ANTH 3301 - World Prehistory

ANTH 3310 - Colorado Archaeology

ANTH 3315 - North American Archaeology

ANTH 3320 - Southwestern Archaeology

ANTH 3330 - Topics in Archaeology

ANTH 3410 - Anthropology of Work

ANTH 3420 - Anthropology and Politics of the Global Tobacco Epidemic

ANTH 3500 - Human Osteology

ANTH 3512 - Human Evolution

ANTH 3550 - Forensic Anthropology

ANTH 3590 - Primate Behavior Research at the Zoo

ANTH 3666 - Anthropology of Death

ANTH 3700 - Current Topics in Anthropology

ANTH 3910 - Cross-Cultural Field Experience

ANTH 3939 - Internship

ANTH 4000 - Special Topics in Anthropology

ANTH 4010 - Medical Anthropology: Global Health

ANTH 4030 - Ethnobiology

ANTH 4040 - Anthropology of Food and Nutrition

ANTH 4050 - Quantitative Methods in Anthropology

ANTH 4060 - Evolutionary Medicine

ANTH 4070 - Culture of Development and Globalization

ANTH 4080 - Global Health Practice

ANTH 4090 - Political Economy of Drugs

ANTH 4150 - Human Biocultural Adaptability

ANTH 4170 - Culture and the Environment

ANTH 4180 - The Nature of Power

ANTH 4200 - Gender in Cross-Cultural Perspective

ANTH 4230 - Anthropology and Community Based Participatory Research

ANTH 4260 - Human Reproductive Ecology

ANTH 4290 - Anthropology and Public Health

ANTH 4300 - Migrant Health

ANTH 4320 - Archaeology of Mexico and Central America

ANTH 4330 - Lithic Analysis

ANTH 4350 - Anthropology of Globalization

ANTH 4380 - Archaeology of Hunters-Gatherers

ANTH 4390 - Laboratory Methods in Archaeology

ANTH 4400 - Archaeology of Power and Inequality

ANTH 4450 - Development and Conservation: Contemporary Issues

ANTH 4460 - Development and Conservation: Theory and Practice

ANTH 4500 - Advanced Issues in Human Evolution

ANTH 4550 - Primate Comparative Anatomy

ANTH 4560 - Human Ecology

ANTH 4570 - Landscape Archaeology

ANTH 4580 - Neanderthals and the Origin of Modern Humans

ANTH 4590 - Primate Behavior

ANTH 4600 - Medical Anthropology

ANTH 4640 - Darwinian Approach to Human Behavior

ANTH 4800 - Special Topics in Medical Anthropology

ANTH 4810 - Integrating Anthropology

ANTH 4840 - Independent Study

ANTH 4880 - Directed Research

ANTH 4910 - Field Experience in Archaeology

ANTH 4995 - Travel Study

ANTH 5000 - Special Topics in Anthropology

ANTH 5014 - Medical Anthropology: Global Health

ANTH 5030 - Ethnobiology

ANTH 5040 - Anthropology of Food and Nutrition

ANTH 5053 - Quantitative Methods in Anthropology

ANTH 5060 - Evolutionary Medicine

ANTH 5070 - Culture of Development and Globalization

ANTH 5080 - Global Health Practice

ANTH 5090 - Political Economy of Drugs

ANTH 5150 - Human Biocultural Adaptability

ANTH 5170 - Culture and the Environment

ANTH 5180 - The Nature of Power

ANTH 5200 - Gender in Cross-Cultural Perspective

ANTH 5230 - Anthropology and Community Based Participatory Research

ANTH 5260 - Human Reproductive Ecology

ANTH 5290 - Anthropology and Public Health

ANTH 5300 - Migrant Health

ANTH 5320 - Archaeology of Mexico and Central America

ANTH 5330 - Lithic Analysis

ANTH 5350 - Anthropology of Globalization

ANTH 5380 - Archaeology of Hunters-Gatherers

ANTH 5400 - Archaeology of Power and Inequality

ANTH 5450 - Development and Conservation: Contemporary Issues

ANTH 5460 - Development and Conservation: Theory and Practice

ANTH 5500 - Advanced Issues in Human Evolution

ANTH 5530 - Anthropological Genetics

ANTH 5550 - Primate Comparative Anatomy

ANTH 5560 - Human Ecology

ANTH 5570 - Landscape Archaeology

ANTH 5580 - Neanderthals and the Origin of Modern Humans

ANTH 5590 - Primate Behavior

ANTH 5600 - Medical Anthropology

ANTH 5640 - Darwinian Approach to Human Behavior

ANTH 5800 - Special Topics in Medical Anthropology

ANTH 5810 - Integrating Anthropology

ANTH 5840 - Independent Study

ANTH 5880 - Directed Research

ANTH 5910 - Field Experience in Archaeology

ANTH 5939 - Internship

ANTH 5995 - Travel Study

ANTH 6000 - Seminar in Current Research Topics

ANTH 6040 - Advanced Topics in Medical Anthropology

ANTH 6041 - Human Genetics: Legal, Ethical and Social Issues

ANTH 6063 - Qualitative Research Design and Methods

ANTH 6103 - Current Theory in Ethnography

ANTH 6133 - Anthropological Perspectives on Language

ANTH 6307 - Contemporary Perspectives in Archaeology

ANTH 6317 - Archaeological Research Design and Analysis

ANTH 6503 - Biological Anthropology Core: The Fossil Record

ANTH 6513 - Biological Anthropology Core: Modern Human Variation

ANTH 6520 - Seminar: Selected Topics in Physical Anthropology

ANTH 6840 - Independent Study: Anth

ANTH 6950 - Master's Thesis

Arabic

ARAB 1010 - Beginning Arabic I

ARAB 1020 - Beginning Arabic II

ARAB 2110 - Intermediate Arabic I

ARAB 2110 - Intermediate Arabic I

ARAB 2120 - Intermediate Arabic II

ARAB 2120 - Intermediate Arabic II

ARAB 4880 - Directed Research

ARAB 5880 - Directed Research

Architecture

ARCH 1110 - Introduction to Architecture

ARCH 2110 - Design Studio I

ARCH 2230 - Architectural History I

ARCH 3110 - Design Studio II

ARCH 3120 - Design Studio III

ARCH 3130 - Construction Practices I

ARCH 3230 - Architectural History II

ARCH 3330 - Building Systems I

ARCH 3340 - Theory of Structures I

ARCH 3430 - Construction Practices II

ARCH 3600 - Special Topics Cultural

ARCH 3601 - History of American Architecture

ARCH 3602 - Architecture Photography

ARCH 3603 - Modern Architecture

ARCH 3603 - Modern Architecture

ARCH 3690 - Cultural Research Abroad

ARCH 3691 - Cultural Design Abroad

ARCH 3700 - Special Topics Design

ARCH 3701 - Survival Sketching

ARCH 3702 - Design Thinking

ARCH 3800 - Special Topics - Technical

ARCH 3801 - Arch. Digital Media I

ARCH 3802 - Arch Project Presentation

ARCH 3804 - Green Tech I

ARCH 3805 - Beginning Revit

ARCH 3806 - Green Tech II

ARCH 3806 - Green Tech II

ARCH 3949 - Internship I

ARCH 4110 - Design Studio IV

ARCH 4120 - Design Studio V

ARCH 4340 - Theory of Structures II

ARCH 4440 - Building Systems II

ARCH 4840 - Independent Study

ARCH 4949 - Internship II

ARCH 5000 - Math and Physics for Architects

ARCH 5110 - Design Studio I

ARCH 5120 - Design Studio II

ARCH 5130 - Design Studio III

ARCH 5140 - Design Studio IV

ARCH 5210 - Introduction to Architecture

ARCH 5220 - History and Theory Architecture I

ARCH 5230 - History and Theory Architecture II

ARCH 5310 - Building Construction I

ARCH 5330 - Sustainable Systems I

ARCH 5340 - Sustainable Systems II

ARCH 5350 - Structures I

ARCH 5360 - Structures II

ARCH 5410 - Professional Practice

ARCH 5420 - BIM: Principles & Practices

ARCH 5430 - Social Context of Design

ARCH 5450 - Sustainable Design Practices

ARCH 5510 - Architectural Graphics

ARCH 6150 - Design Studio V

ARCH 6170 - Design Studio VI

ARCH 6171 - Integration Seminar

ARCH 6180 - Furniture Design

ARCH 6185 - Digital Design & Fabrication

ARCH 6190 - Special Topics in Design Studies

ARCH 6205 - Urban Housing

ARCH 6210 - History of American Architecture

ARCH 6212 - History of Modern Architecture

ARCH 6220 - History of Architectural Theory

ARCH 6222 - Contested Terrains

ARCH 6230 - Preservation Theory and Practice

ARCH 6231 - Regionalisms & the Vernacular

ARCH 6232 - Reading the City

ARCH 6233 - Historic Buildings in Context

ARCH 6240 - History Of The City

ARCH 6241 - Studies in Tectonics

ARCH 6254 - Architecture, In Theory

ARCH 6255 - Cultural Institutions

ARCH 6260 - Architectural Precedents

ARCH 6260 - Architectural Precedents

ARCH 6275 - History Native Amer Arch

ARCH 6290 - Special Topics in Cultural Studies

ARCH 6310 - Greenbuilding Tech

ARCH 6313 - LEED Certification, Greenbuilding Seminar

ARCH 6314 - LEED AP Advanced Greenbuilding Seminar

ARCH 6351 - Building Conservation

ARCH 6352 - Documentation, Analysis, Representation

ARCH 6353 - Daylighting Design

ARCH 6355 - Urban Conservation: Context for Reuse

ARCH 6370 - Introduction To Design Build

ARCH 6373 - Construction in Design Build

ARCH 6375 - Green Tech I

ARCH 6376 - Green Tech II

ARCH 6390 - Special Topics in Technology

ARCH 6412 - Construction Documents

ARCH 6413 - Construction Leadership

ARCH 6420 - Integrated Practice & BIM Technology

ARCH 6450 - Pre-Design

ARCH 6463 - BIM: Emerging Prof. Practices

ARCH 6464 - BIM: Advanced Design Concepts

ARCH 6470 - ACE Mentoring

ARCH 6471 - Managing Quality & Risks

ARCH 6472 - Architecture in a Single Source Project Delivery

ARCH 6473 - Research Tools & Methods

ARCH 6490 - Special Topics in Professional Studies

ARCH 6510 - Digital Applications in Design

ARCH 6515 - Adv. Digital Representation

ARCH 6530 - The Art of Proportion

ARCH 6550 - Digital Portfolio Design

ARCH 6560 - Architecture Photography

ARCH 6570 - Sketching As Seeing

ARCH 6590 - Special Topics in Representational Studies

ARCH 6710 - Architecture in Other Cultures

ARCH 6715 - The Built Environment in Other Cultures I: Research Design

ARCH 6730 - International Studies Preparation

ARCH 6775 - Bluff General Elective

ARCH 6840 - Independent Study

ARCH 6910 - Teaching Assistantship

ARCH 6930 - Architecture Internship

ARCH 6931 - Architecture Internship

ARCH 7840 - Independent Study

Bioengineering

BIOE 1010 - Bioengineering Design and Prototyping I

BIOE 1020 - Bioengineering Design and Prototyping II

BIOE 2010 - Introduction to Programming for Bioengineers

BIOE 2020 - Introduction to Computational Methods for Bioengineers

BIOE 2840 - Independent Study in Bioengineering

BIOE 3010 - Bioinstrumentation

BIOE 3020 - Introduction to Biomechanical Analysis

BIOE 3030 - Introduction to Biomaterials

BIOE 3040 - Physiology for Bioengineering

BIOE 3050 - Cell & Molecular Bioengineering

BIOE 3051 - Cell & Molecular Bioengineering Lab

BIOE 3060 - Biostatistics, Measurement and Analysis

BIOE 3070 - Bioengineering Lab I

BIOE 3071 - Bioengineering Lab II

BIOE 3090 - Introduction to BioDesign

BIOE 3929 - Undergraduate Research Project

BIOE 3939 - Undergraduate Internship

BIOE 4035 - Undergraduate BioDesign II

BIOE 4045 - BioDesign III

BIOE 4053 - Optics and Microscopy in Biomedical Research

BIOE 4063 - 3D Modeling for Bioengineers

BIOE 4064 - Advanced MatLab For Bioengineers And Life Scientists

BIOE 4065 - Introduction to iOS Apps

BIOE 4066 - Advanced Topics in iOS Apps

BIOE 4068 - Imaging for Bioengineers

BIOE 4069 - Advanced Biomechanics for Undergraduates

BIOE 4073 - Neural Interfaces and Bionic Limbs

BIOE 4083 - Polymers in Biomedical Applications

BIOE 4085 - Tissue Engineering

BIOE 4420 - Special Topics in Bioengineering

BIOE 4840 - Independent Study in Bioengineering

BIOE 5010 - Cell and Molecular Biology for Bioengineers

BIOE 5011 - Systems Physiology for Bioengineers

BIOE 5020 - Analytic Methods for Engineering Analysis

BIOE 5021 - Numerical Methods for Engineering Analysis

BIOE 5030 - Technology for Bioengineers

BIOE 5031 - Technology for Bioengineers II

BIOE 5040 - Research Methods for Bioengineers

BIOE 5041 - Clinical Experiences for Bioengineers

BIOE 5053 - Optics & Microscopy in Biomedical Research

BIOE 5063 - 3D Modeling for Bioengineers

BIOE 5064 - Advanced MatLab For Bioengineers And Life Scientists

BIOE 5065 - Introduction to iOS Apps

BIOE 5066 - Advanced Topics in iOS Apps

BIOE 5068 - Imaging for Bioengineers

BIOE 5073 - Neural Interfaces and Bionic Limbs

BIOE 5074 - Introduction to Laboratory Animal Research

BIOE 5083 - Polymers in Biomedical Applications

BIOE 5085 - Tissue Engineering

BIOE 5420 - Special Topics in Bioengineering

BIOE 5840 - Independent Study in Bioengineering

BIOE 6655 - Foundations of Doctoring MS Years

BIOE 6950 - Masters Thesis

BIOE 6960 - Master's Project

BIOE 8990 - Doctoral Dissertation

Biology

BIOL 1111 - Freshman Seminar

BIOL 1136 - Human Biology

BIOL 1550 - Basic Biology: Ecology and the Diversity of Life

BIOL 1560 - Basic Biology: From Cells to Organisms

BIOL 2051 - General Biology I

BIOL 2061 - General Biology II

BIOL 2071 - General Biology Laboratory I

BIOL 2081 - General Biology Laboratory II

BIOL 2091 - General Biology Lab for Secondary Teacher Licensure

BIOL 2095 - Honors General Biology I

BIOL 2096 - Honors General Biology Lab I

BIOL 2097 - Honors General Biology II

BIOL 2098 - Honors General Biology Lab II

BIOL 2750 - Introduction to Molecular Research Techniques

BIOL 2840 - Independent Study

BIOL 2939 - Internship

BIOL 3104 - Behavioral Genetics

BIOL 3124 - Introduction to Molecular Biology

BIOL 3134 - Advanced Topics

BIOL 3225 - Human Physiology

BIOL 3244 - Human Anatomy

BIOL 3330 - Plant Diversity

BIOL 3411 - Principles of Ecology

BIOL 3413 - Ecology Laboratory

BIOL 3445 - Introduction to Evolution

BIOL 3520 - Invertebrate Zoology

BIOL 3521 - Vertebrate Biology

BIOL 3611 - General Cell Biology

BIOL 3612 - Cell Biology Laboratory

BIOL 3621 - Introduction to Immunology

BIOL 3654 - General Microbiology

BIOL 3763 - Biostatistics

BIOL 3832 - General Genetics

BIOL 3840 - Independent Study

BIOL 3939 - Internship

BIOL 4024 - Introduction to Biotechnology

BIOL 4050 - Advanced Biology Topics

BIOL 4051 - Advanced Topics In Microbiology

BIOL 4052 - Advanced Ecology

BIOL 4053 - Disease Ecology

BIOL 4054 - Developmental Biology

BIOL 4064 - Advanced Cell Biology

BIOL 4068 - The Cell Cycle

BIOL 4074 - Human Reproductive Biology

BIOL 4125 - Molecular Biology Laboratory

BIOL 4126 - Molecular Genetics

BIOL 4128 - Topics in Molecular Biology

BIOL 4134 - Human Genetics

BIOL 4144 - Medical Microbiology

BIOL 4154 - Conservation Biology

BIOL 4165 - Neurobiology

BIOL 4250 - Mechanisms of Animal Behavior

BIOL 4315 - Plant Systematics

BIOL 4335 - Plant Science

BIOL 4345 - Flora of Colorado

BIOL 4415 - Microbial Ecology

BIOL 4416 - Aquatic Ecology

BIOL 4425 - Biogeography

BIOL 4450 - Marine Biology

BIOL 4455 - Comparative Environmental Physiology

BIOL 4460 - Environmental Toxicology

BIOL 4464 - Exercise Physiology

BIOL 4474 - Ecological Methods

BIOL 4475 - Mechanisms of Human Pathology

BIOL 4494 - Population and Evolutionary Genetics

BIOL 4550 - Cell Signaling

BIOL 4622 - Topics in Immunology

BIOL 4634 - Biology of Cancer

BIOL 4640 - Mammalogy

BIOL 4644 - Advanced Human Anatomy Laboratory

BIOL 4674 - Endocrinology

BIOL 4840 - Independent Study

BIOL 4880 - Directed Research

BIOL 4910 - Field Studies

BIOL 4974 - Evolution

BIOL 4990 - Undergraduate Research Seminar

BIOL 5001 - Cells, Human Systems and Heredity

BIOL 5002 - RM-MSMSP: Ecology, Biodiversity and Adaptation

BIOL 5003 - RM-MSMSP: The Biology of Life: Integrated Perspectives

BIOL 5004 - Research Experience for Teachers - Biology Cohort

BIOL 5024 - Introduction to Biotechnology

BIOL 5050 - Advanced Biology Topics

BIOL 5051 - Advanced Topics In Microbiology

BIOL 5052 - Advanced Ecology

BIOL 5053 - Disease Ecology

BIOL 5054 - Developmental Biology

BIOL 5064 - Advanced Cell Biology

BIOL 5068 - The Cell Cycle

BIOL 5074 - Human Reproductive Biology

BIOL 5099 - Biology For Computer Scientists, Engineers and Mathematicians

BIOL 5125 - Molecular Biology Lab

BIOL 5126 - Molecular Genetics

BIOL 5128 - Topics in Molecular Biology

BIOL 5134 - Human Genetics

BIOL 5144 - Medical Microbiology

BIOL 5154 - Conservation Biology

BIOL 5165 - Neurobiology

BIOL 5250 - Mechanisms of Animal Behavior

BIOL 5315 - Plant Systematics

BIOL 5330 - Evolution and Diversification of Plants

BIOL 5335 - Plant Science

BIOL 5345 - Flora of Colorado

BIOL 5415 - Microbial Ecology

BIOL 5416 - Aquatic Ecology

BIOL 5425 - Biogeography

BIOL 5445 - Applied Environmental Biology

BIOL 5450 - Marine Biology

BIOL 5455 - Comparative Environmental Physiology

BIOL 5460 - Environmental Toxicology

BIOL 5464 - Exercise Physiology

BIOL 5474 - Ecological Methods

BIOL 5475 - Mechanisms of Human Pathology

BIOL 5494 - Population and Evolutionary Genetics

BIOL 5550 - Cell Signaling

BIOL 5621 - Immunology

BIOL 5622 - Topics in Immunology

BIOL 5634 - Biology of Cancer

BIOL 5640 - Mammalogy

BIOL 5644 - Advanced Human Anatomy Laboratory

BIOL 5674 - Endocrinology

BIOL 5705 - Biological Research Workshop

BIOL 5840 - Independent Study: BIOL

BIOL 5910 - Field Studies

BIOL 5939 - Internship

BIOL 5974 - Evolution

BIOL 6002 - Biology Skills Sets - Pedagogy

BIOL 6655 - Seminar

BIOL 6705 - Biological Research Workshop

BIOL 6764 - Biological Data Analysis

BIOL 6880 - Directed Research

BIOL 6950 - Master's Thesis

BIOL 7010 - Integrative and Systems Biology

BIOL 7050 - Special Topics

BIOL 7650 - Research in Integrative and Systems Biology

BIOL 7920 - Directed Reading/Grant Writing

BIOL 8990 - Doctoral Dissertation

BIOL 9000 - INTC: Special Topics

Bus Minor for non-bus majors

BMIN 1000 - Introduction to Business

BMIN 3001 - Fundamentals of Management, Marketing, and Operations

BMIN 3002 - Fundamentals of Accounting, Finance, & Data Driven Analysis

BMIN 3003 - Essential Skills for Today's Workplace

BMIN 3004 - Innovation, Strategy, and Business Planning

Business

BUSN 1110 - Intro to Investment Services Careers

BUSN 1110 - Intro to Investment Services Careers

BUSN 5939 - Internship

BUSN 6520 - Leading Individuals and Teams

BUSN 6521 - Leading Individuals and Teams

BUSN 6530 - Data Analysis for Managers

BUSN 6540 - Legal and Ethical Environment of Business

BUSN 6541 - Legal and Ethical Environment of Business (Health Section)

BUSN 6550 - Analyzing and Interpreting Accounting Information

BUSN 6560 - Marketing Management

BUSN 6561 - Marketing Management (Health Section)

BUSN 6610 - Information Systems Management and Strategy

BUSN 6620 - Applied Economics for Managers

BUSN 6621 - Applied Economics for Managers (Health Section)

BUSN 6630 - Management of Operations

BUSN 6640 - Financial Management

BUSN 6710 - Strategic Management

BUSN 6711 - Strategic Management (Health Section)

BUSN 6800 - Topics In Business

BUSN 6807 - Analyzing Emerging Opps & Planning During Uncertain Time

BUSN 6811 - IT and New Business Paradigms

BUSN 6812 - Business Intelligence and Analytics

BUSN 6830 - Business and the Natural Environment

BUSN 6840 - Independent Study

BUSN 6860 - Finance in the Sports Entertainment Industries

BUSN 6870 - Global Climate Change

Business Analytics

BANA 2010 - Business Statistics

BANA 3000 - Operations Management

BANA 4840 - Independent Study

BANA 4950 - Special Topics in Business Analytics

BANA 5939 - Internship

BANA 6610 - Statistics for Business Analytics

BANA 6620 - Computing for Business Analytics

BANA 6630 - Business Forecasting

BANA 6640 - Decision Analysis

BANA 6650 - Project Management

BANA 6660 - Predictive Modeling with Big Data

BANA 6720 - Simulation Modeling

BANA 6730 - Supply Chain Management

BANA 6740 - VBA for Business Analytics

BANA 6800 - Special Topics

BANA 6840 - Independent Study

BANA 6910 - Business Analytics Practicum

Business Law

BLAW 3000 - Legal and Ethical Environments of Business I

BLAW 3050 - Business Law and Ethics

BLAW 3100 - Legal and Ethical Implications of Risk

BLAW 4120 - Legal Issues for Entrepreneurs

BLAW 4121 - Legal and Ethical Implications of Risk

BLAW 4140 - Negotiation Skills/Property: Effective Strategies

BLAW 6500 - Legal Issues for CPA's

Candidate for Degree

CAND 5940 - Candidate for Degree

Chemistry

CHEM 1000 - Foundations for General Chemistry

CHEM 1111 - Freshman Seminar

CHEM 1115 - Chemistry Content

CHEM 1130 - Engineering General Chemistry

CHEM 1474 - Core Chemistry: Chemistry For the Consumer

CHEM 2031 - General Chemistry I

CHEM 2038 - General Chemistry Laboratory I

CHEM 2061 - General Chemistry II

CHEM 2068 - General Chemistry Laboratory II

CHEM 2081 - Honors General Chemistry I

CHEM 2088 - Honors General Chemistry I Laboratory

CHEM 2091 - Honors General Chemistry II Lecture

CHEM 2098 - Honors General Chemistry II Laboratory

CHEM 2300 - Nutritional Chemistry

CHEM 2600 - Introductory Topics in Chemistry

CHEM 2840 - Independent Study: CHEM

CHEM 2939 - Internship

CHEM 3011 - Inorganic Chemistry

CHEM 3018 - Inorganic Chemistry Laboratory

CHEM 3111 - Analytical Chemistry

CHEM 3118 - Analytical Chemistry Laboratory

CHEM 3411 - Organic Chemistry I

CHEM 3418 - Organic Chemistry Laboratory I

CHEM 3421 - Organic Chemistry II

CHEM 3428 - Organic Chemistry Laboratory II

CHEM 3481 - Honors Organic Chemistry I

CHEM 3488 - Honors Organic Chemistry Laboratory I

CHEM 3491 - Honors Organic Chemistry II

CHEM 3498 - Honors Organic Chemistry Laboratory II

CHEM 3510 - Physical Chemistry: Biological Applications.

CHEM 3810 - Biochemistry

CHEM 3840 - Independent Study

CHEM 3939 - Internship

CHEM 4121 - Instrumental Analysis

CHEM 4128 - Instrumental Analysis Laboratory

CHEM 4511 - Physical Chemistry: Thermodynamics and Kinetics

CHEM 4518 - Physical Chemistry Laboratory: Reaction Analysis

CHEM 4521 - Physical Chemistry: Quantum and Spectroscopy

CHEM 4538 - Physical Chemistry Laboratory: Molecular Structure

CHEM 4548 - Physical Biochemistry Laboratory

CHEM 4600 - Advanced Topics in Chemistry

CHEM 4610 - Understanding & Presenting Chemical Research

CHEM 4700 - Environmental Chemistry

CHEM 4810 - General Biochemistry I

CHEM 4820 - General Biochemistry II

CHEM 4828 - Biochemistry Lab

CHEM 4835 - Biochemistry of Cancer

CHEM 4840 - Independent Study: Chem

CHEM 4880 - Directed Research

CHEM 5010 - Advanced Inorganic Chemistry

CHEM 5071 - RM-MSMSP: Atoms and Properties of Matter

CHEM 5072 - RM-MSMSP: Interactions of Elements and Compounds

CHEM 5073 - RM-MSMSP Research Experience for Teachers - Chemistry Cohort

CHEM 5110 - Advanced Analytical Chemistry

CHEM 5130 - Surface Analytical Techniques

CHEM 5250 - Chemometrics: Data Analysis

CHEM 5310 - Advanced Organic Chemistry

CHEM 5510 - Computational Chemistry

CHEM 5520 - Molecular Structure and Spectra

CHEM 5530 - Advanced Physical Chemistry

CHEM 5550 - Applications of Group Theory in Chemistry

CHEM 5600 - Graduate Topics in Chemistry

CHEM 5610 - Understanding & Presenting Chemical Research

CHEM 5700 - Environmental Chemistry

CHEM 5710 - Air Pollution Chemistry

CHEM 5720 - Atmospheric Sampling and Analysis

CHEM 5810 - Graduate Biochemistry I

CHEM 5830 - Graduate Biochemistry II

CHEM 5835 - Biochemistry of Cancer

CHEM 5840 - Independent Study

CHEM 5880 - Directed Research

CHEM 5939 - Internship

CHEM 5950 - Master's Thesis

CHEM 6000 - Chemistry Seminar

CHEM 6001 - Master's Research Seminar

CHEM 6002 - Chemistry Seminar I

CHEM 6003 - Chemistry Seminar II

CHEM 6840 - Independent Study: CHEM

CHEM 6950 - Master's Thesis

CHEM 6960 - Master's Report

Chinese

CHIN 1000 - China and the Chinese

CHIN 1010 - Beginning Chinese I

CHIN 1020 - Beginning Chinese II

CHIN 1071 - Mandarin Chinese for the Professions

CHIN 1111 - Freshman Seminar

CHIN 2110 - Second Year Chinese I

CHIN 2120 - Second Year Chinese II

CHIN 2840 - Independent Study

CHIN 2939 - Internship

CHIN 2970 - Contemporary Chinese Cinema

CHIN 3200 - Contemporary Chinese Society and Culture

CHIN 3300 - Special Topics on Chinese Film

CHIN 3840 - Independent Study: CHIN

CHIN 3995 - Travel Study

CHIN 4880 - Directed Research

CHIN 5100 - Methods of Teaching Chinese Immersion

CHIN 5880 - Directed Research

Civil Engineering

CVEN 1025 - Civil Engineering Graphics and Computer Aided Design

CVEN 1800 - Special Topics

CVEN 1840 - Independent Study

CVEN 2121 - Analytical Mechanics I

CVEN 2200 - Computing Methods in Civil Engineering

CVEN 2212 - Plane Surveying

CVEN 2800 - Special Topics

CVEN 2840 - Independent Study

CVEN 3111 - Analytical Mechanics II

CVEN 3121 - Mechanics of Materials

CVEN 3141 - Introduction to Structural Materials

CVEN 3212 - Plane Surveying For GIS Majors

CVEN 3313 - Fluid Mechanics

CVEN 3323 - Hydrosystems Engineering

CVEN 3401 - Introduction to Environmental Engineering

CVEN 3414 - Water Supply and Distribution Systems

CVEN 3505 - Structural Analysis

CVEN 3602 - Transportation Engineering

CVEN 3718 - Geotechnical Engineering I

CVEN 3800 - Special Topics: 3800

CVEN 3840 - Independent Study

CVEN 4000 - Senior Seminar

CVEN 4025 - Advanced Civil Engineering Graphics

CVEN 4067 - Senior Design Projects

CVEN 4077 - Engineering Economy

CVEN 4087 - Engineering Contracts

CVEN 4230 - Construction Engineering Systems

CVEN 4232 - Construction Planning and Control

CVEN 4235 - Construction Engineering

CVEN 4388 - Site Engineering

CVEN 4427 - Storm Water System Design

CVEN 4537 - Numerical Methods for Engineers

CVEN 4565 - Timber Structure Design

CVEN 4575 - Structural Steel Design

CVEN 4585 - Reinforced Concrete Design

CVEN 4602 - Highway Engineering

CVEN 4719 - Design & Construction of Geosynthetic Soil Structures

CVEN 4728 - Geotechnical Engineering II

CVEN 4738 - Intermediate Foundation Engineering

CVEN 4780 - Engineering Geology

CVEN 4800 - Special Topics

CVEN 4840 - Independent Study

CVEN 5087 - Engineering Contracts

CVEN 5111 - Structural Dynamics

CVEN 5112 - Structural Design Loads

CVEN 5121 - Intermediate Mechanics of Materials

CVEN 5201 - Construction Dewatering

CVEN 5231 - Construction Materials and Methods

CVEN 5231 - Construction Materials and Methods

CVEN 5232 - Construction Planning and Control

CVEN 5232 - Construction Planning and Control

CVEN 5233 - Construction Cost Estimating

CVEN 5233 - Construction Cost Estimating

CVEN 5234 - Sustainable Construction

CVEN 5234 - Sustainable Construction

CVEN 5235 - Advanced Construction Engineering

CVEN 5235 - Advanced Construction Engineering

CVEN 5236 - Project Management Systems

CVEN 5236 - Project Management Systems

CVEN 5237 - Advanced Project Management

CVEN 5237 - Advanced Project Management

CVEN 5238 - Integrated Construction Leadership

CVEN 5333 - Surface Water Hydrology

CVEN 5334 - Groundwater Hydrology

CVEN 5335 - Vadose Zone Hydrology

CVEN 5336 - Urban Runoff Quality and Quantity Modeling

CVEN 5343 - Open Channel Hydraulics

CVEN 5344 - Unsteady Open Channel Hydraulics

CVEN 5345 - Computational Methods for Water Resources

CVEN 5381 - Introduction to Geographic Information Systems

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

CVEN 5387 - Advanced Remote Sensing

CVEN 5388 - Site Engineering

CVEN 5389 - Open Source Desktop Mapping, Modeling & Data Processing

CVEN 5390 - Interactive Web Mapping GIS

CVEN 5391 - Introduction to Geomatics

CVEN 5392 - Unmanned Aerial Systems

CVEN 5393 - Water Resources Development and Management

CVEN 5394 - Water Resources Systems

CVEN 5395 - GPS/GNSS

CVEN 5401 - Introduction to Environmental Engineering

CVEN 5402 - Integrated Environmental Modeling

CVEN 5403 - Environmental Regulations and Management Systems

CVEN 5404 - Sustainable Water Systems: Physical & Chemical Processes

CVEN 5405 - Systems Analysis for Environment and Sustainability

CVEN 5406 - Engineering and Science Informatics

CVEN 5406 - Engineering and Science Informatics

CVEN 5427 - Storm Water System Design

CVEN 5434 - Sustainable Water Systems: Biological Processes

CVEN 5444 - Design of Solid Residuals and Natural Treatment Systems

CVEN 5456 - Engineering Practice

CVEN 5457 - Administration of Public Works

CVEN 5460 - Introduction to Sustainable Urban Infrastructure

CVEN 5461 - Defining and Measuring Sustainability

CVEN 5462 - Theories of Sustainable Infrastructure Management

CVEN 5464 - Fundamentals of Sustainability and Climate Change

CVEN 5464 - Fundamentals of Sustainability and Climate Change

CVEN 5480 - Hazardous Wastes and Site Remediation

CVEN 5481 - Sustainable Water Systems Policy and Planning

CVEN 5494 - Risk Assessment in Environmental Engineering

CVEN 5514 - Matrix Analysis of Structures

CVEN 5515 - Introduction to Finite Element Analysis

CVEN 5565 - Advanced Timber Structure Design

CVEN 5575 - Advanced Topics in Structural Steel Design

CVEN 5585 - Advanced Topics in Reinforced Concrete

CVEN 5602 - Advanced Street & Highway Design

CVEN 5611 - Traffic and Safety Data Analysis

CVEN 5612 - Traffic Impact Assessment

CVEN 5613 - Traffic Simulation Modeling

CVEN 5621 - Highway Capacity Analysis

CVEN 5622 - Traffic Operations and Control

CVEN 5631 - Travel Demand Forecasting

CVEN 5632 - Urban Transportation Modeling

CVEN 5633 - Case Studies in Sustainable Transportation

CVEN 5641 - Transit System Design

CVEN 5642 - Transit Construction

CVEN 5652 - Airport Planning and Design

CVEN 5662 - Transportation System Safety

CVEN 5682 - Pavement Design

CVEN 5692 - Urban Traffic Workshop

CVEN 5708 - Advanced Soils Engineering

CVEN 5709 - Settlement Analysis

CVEN 5718 - Engineering Properties of Soils

CVEN 5719 - Design and Construction of Geosynthetic-Reinforced Soil Structures

CVEN 5728 - Groundwater and Seepage

CVEN 5738 - Foundation Engineering

CVEN 5748 - Design of Earth Embankment Dams

CVEN 5758 - Foundations on Expansive Soils

CVEN 5768 - Introduction to Rock Engineering

CVEN 5778 - Applied and Experimental Rock Mechanics

CVEN 5780 - Engineering Geology

CVEN 5788 - Design and Construction of Municipal Solid Waste Disposal Facilities

CVEN 5792 - Energy Resources and Systems for Sustainability

CVEN 5798 - Dynamics of Soils and Foundations

CVEN 5800 - Special Topics

CVEN 5835 - Advanced Timber Structure Design

CVEN 5840 - Independent Study

CVEN 5939 - Internship

CVEN 5950 - Master's Thesis

CVEN 5960 - Master's Report

CVEN 6111 - Dynamics of Structures

CVEN 6131 - Theory of Elasticity

CVEN 6165 - Buckling in Structures

CVEN 6336 - Urban Flood Control System Design

CVEN 6353 - Hydraulic Design

CVEN 6515 - Advanced Theory of Structures

CVEN 6738 - Finite Element Method in Geotechnical Engineering

CVEN 6840 - Independent Study

CVEN 7800 - Special Topics

CVEN 7840 - Independent Study

CVEN 7990 - Doctoral Dissertation

CVEN 8990 - Doctoral Dissertation

CLAS Interdepartmental

CLAS 2939 - Internship

CLAS 3939 - Internship

CLAS 4840 - Independent Study: CLAS

Commodities

CMDT 4582 - Commodity Supply Chain Management

CMDT 4682 - Trading in Commodity and Financial Markets

CMDT 4802 - Foundations of Commodities

CMDT 6582 - Commodity Supply Chain Management

CMDT 6682 - Trading in Commodity and Financial Markets

CMDT 6802 - Foundations of Commodities

Communication

COMM 1001 - Presentational Speaking

COMM 1011 - Fundamentals of Communication

COMM 1021 - Introduction To Media Studies

COMM 1041 - Interpersonal Communication

COMM 1051 - Topics in Communication

COMM 1071 - Introduction to Journalism

COMM 1111 - Freshman Seminar

COMM 2000 - Persuasion

COMM 2020 - Communication, Citizenship, and Social Justice

COMM 2045 - Workplace Communication

COMM 2050 - Business and Professional Speaking

COMM 2051 - Introduction to Strategic Communication

COMM 2071 - Media Writing Skills

COMM 2082 - Introduction to Environmental Communication

COMM 2140 - Argumentation

COMM 3071 - Advanced Media Writing Skills

COMM 3071 - Advanced Media Writing Skills

COMM 3230 - Chinese Communication & Culture in Context

COMM 3231 - Famous U.S. Trials

COMM 3271 - Communication and Diversity

COMM 3275 - Family Communication

COMM 3650 - Media And Society

COMM 3840 - Independent Study

COMM 3939 - Internship

COMM 4000 - Communication and Sport

COMM 4015 - Communication and Civility

COMM 4020 - Feminist Perspectives on Communication

COMM 4021 - Perspectives on Rhetoric

COMM 4022 - Critical Analysis of Communication

COMM 4031 - Perspectives on Communication

COMM 4040 - Communication, Prisons, and Social Justice

COMM 4051 - Advanced Strategic Communication

COMM 4082 - Wilderness Communication

COMM 4111 - Theories of Leadership

COMM 4215 - Ethics in Communication

COMM 4221 - Research Methods: Qualitative

COMM 4230 - Nonverbal Communication

COMM 4240 - Organizational Communication

COMM 4245 - Advanced Organizational Communication

COMM 4255 - Negotiations and Bargaining

COMM 4260 - Communication and Conflict

COMM 4262 - Mediation

COMM 4265 - Gender and Communication

COMM 4268 - Communication and Diversity in U.S. History

COMM 4270 - Intercultural Communication

COMM 4280 - Communication and Change

COMM 4282 - Environmental Communication

COMM 4290 - Web Design

COMM 4300 - Multimedia Authoring

COMM 4430 - Communication, China, and the US

COMM 4500 - Health Communication

COMM 4525 - Health Communication and Community

COMM 4550 - Rhetorics of Medicine & Health

COMM 4558 - Digital Health Narratives

COMM 4600 - Media Theory

COMM 4601 - You Are What You Eat: Food as Communication

COMM 4610 - Communication, media, and sexuality

COMM 4620 - Health Risk Communication

COMM 4621 - Visual Communication

COMM 4665 - Principles of Advertising

COMM 4680 - Mass Media Law And Policy

COMM 4681 - Communication Issues in Trial Court Practices and Processes

COMM 4682 - Political Communication

COMM 4683 - Media in the Courtroom

COMM 4688 - Senior Seminar: Transitioning from College to Career

COMM 4700 - Writing Practicum

COMM 4710 - Topics in Communication

COMM 4720 - Dynamics of Global Communication

COMM 4750 - Legal Reasoning and Writing

COMM 4760 - New Media

COMM 4840 - Independent Study

COMM 4880 - Directed Research

COMM 4995 - Travel Study

COMM 5000 - Communication and Sport

COMM 5015 - Communication and Civility

COMM 5020 - Feminist Perspectives on Communication

COMM 5021 - Perspectives on Rhetoric

COMM 5022 - Critical Analysis of Communication

COMM 5040 - Communication, Prisons, and Social Justice

COMM 5051 - Advanced Strategic Communication

COMM 5082 - Wilderness Communication

COMM 5111 - Theories of Leadership

COMM 5140 - Argumentation

COMM 5205 - Empirical Research Methods for Communication

COMM 5215 - Ethics in Communication

COMM 5221 - Research Methods: Qualitative

COMM 5230 - Nonverbal Communication

COMM 5240 - Organizational Communication

COMM 5245 - Advanced Organizational Communication

COMM 5250 - Difference Matters and Organizational Communication

COMM 5255 - Negotiations and Bargaining

COMM 5260 - Communication and Conflict

COMM 5262 - Mediation

COMM 5265 - Gender and Communication

COMM 5268 - Communication and Diversity in U.S. History

COMM 5270 - Intercultural Communication

COMM 5280 - Communication and Change

COMM 5282 - Environmental Communication

COMM 5290 - Web Design

COMM 5300 - Multimedia Authoring

COMM 5430 - Communication, China, & the US

COMM 5500 - Health Communication

COMM 5550 - Rhetorics of Medicine & Health

COMM 5558 - Digital Health Narratives

COMM 5600 - Media Theory

COMM 5601 - You Are What You Eat: Food as Communication

COMM 5620 - Health Risk Communication

COMM 5621 - Visual Communication

COMM 5665 - Principles of Advertising

COMM 5680 - Mass Communication Law and Policy

COMM 5681 - Communication Issues in Trial Court Practices and Processes

COMM 5682 - Political Communication

COMM 5700 - Writing Practicum

COMM 5710 - Topics in Communication

COMM 5720 - Dynamics of Global Communication

COMM 5750 - Legal Reasoning and Writing

COMM 5760 - New Media

COMM 5840 - Independent Study

COMM 5880 - Directed Research

COMM 5939 - Internship

COMM 5995 - Travel Study

COMM 6013 - Introduction to Graduate Work in Communication

COMM 6200 - Communication and Critical Theory

COMM 6400 - Communication, Globalization and Social Justice

COMM 6950 - Master's Thesis

COMM 6960 - Master's Project

Computer Science

CSCI 1001 - Computer Forensics I

CSCI 1350 - Introduction to Computing in Society

CSCI 1410 - Fundamentals of Computing

CSCI 1411 - Fundamentals of Computing Laboratory

CSCI 1510 - Logic Design

CSCI 1800 - Special Topics

CSCI 2002 - Computer Forensics II

CSCI 2132 - Circuits and Electronics

CSCI 2312 - Intermediate Programming

CSCI 2421 - Data Structures and Program Design

CSCI 2511 - Discrete Structures

CSCI 2525 - Assembly Language and Computer Organization

CSCI 2571 - Fundamentals of UNIX

CSCI 2800 - Special Topics

CSCI 2930 - Practical System Administration

CSCI 3287 - Database System Concepts

CSCI 3320 - Advanced Programming

CSCI 3412 - Algorithms

CSCI 3415 - Principles of Programming Languages

CSCI 3453 - Operating System Concepts

CSCI 3508 - Introduction to Software Engineering

CSCI 3511 - Hardware-Software Interface

CSCI 3560 - Probability and Computing

CSCI 3800 - Special Topics

CSCI 3840 - Independent Study: CSCI

CSCI 3920 - Java Applications

CSCI 3963 - Network Structures

CSCI 4034 - Theoretical Foundations of Computer Science

CSCI 4110 - Applied Number Theory

CSCI 4172 - Complexity and Problem Solving

CSCI 4173 - Computational Complexity and Problem Solving

CSCI 4202 - Introduction to Artificial Intelligence

CSCI 4211 - Mobile Computing and Programming

CSCI 4287 - Embedded Systems Programming

CSCI 4408 - Applied Graph Theory

CSCI 4411 - Computational Geometry

CSCI 4501 - Java

CSCI 4555 - Compiler Design

CSCI 4565 - Introduction to Computer Graphics

CSCI 4591 - Computer Architecture

CSCI 4630 - Linguistic Geometry

CSCI 4640 - Universal Compiler: Theory and Construction

CSCI 4650 - Numerical Analysis I

CSCI 4660 - Numerical Analysis II

CSCI 4738 - Senior Design I

CSCI 4739 - Senior Design II

CSCI 4740 - Computer Security

CSCI 4761 - Introduction to Computer Networks

CSCI 4771 - Introduction to Mobile Computing

CSCI 4788 - Bioinformatics

CSCI 4800 - Special Topics

CSCI 4840 - Independent Study

CSCI 4910 - User Experience Design

CSCI 4920 - Computer Game Design and Programming

CSCI 4939 - Internship

CSCI 5010 - Software Architecture

CSCI 5011 - Software Project Management Support

CSCI 5012 - Data Systems

CSCI 5098 - Computer Science for Bioscientists

CSCI 5110 - Applied Number Theory

CSCI 5172 - Complexity and Problem Solving

CSCI 5211 - Mobile Computing and Programming

CSCI 5217 - Information Theory

CSCI 5255 - Object Oriented Design

CSCI 5408 - Applied Graph Theory

CSCI 5409 - Graph Theory and Graph Algorithms

CSCI 5411 - Computational Geometry

CSCI 5446 - Theory of Automata

CSCI 5451 - Algorithms

CSCI 5542 - Neural Networks

CSCI 5551 - Parallel and Distributed Systems

CSCI 5552 - Advanced Topics in Parallel Processing

CSCI 5559 - Database Systems

CSCI 5565 - Introduction to Computer Graphics

CSCI 5573 - Operating Systems

CSCI 5574 - Advanced Topics in Operating Systems

CSCI 5582 - Artificial Intelligence

CSCI 5585 - Advanced Computer Graphics

CSCI 5593 - Advanced Computer Architecture

CSCI 5595 - Computer Animation

CSCI 5610 - Computational Biology

CSCI 5619 - Complex Intelligent Systems

CSCI 5630 - Linguistic Geometry

CSCI 5640 - Universal Compiler: Theory and Construction

CSCI 5654 - Algorithms for Communication Networks

CSCI 5660 - Numerical Analysis I

CSCI 5661 - Numerical Analysis II

CSCI 5667 - Introduction to Approximation Theory

CSCI 5682 - Expert Systems

CSCI 5690 - Knowledge Representation for Intelligent Systems

CSCI 5701 - High-Performance Communication Systems and Network Analysis

CSCI 5702 - Data Mining Concepts and Techniques

CSCI 5704 - Introduction to Distributed Systems

CSCI 5728 - Software Engineering

CSCI 5765 - Computer Networks

CSCI 5771 - Introduction to Mobile Computing

CSCI 5780 - Theory of Distributed Computing

CSCI 5799 - Cloud Computing

CSCI 5800 - Special Topics

CSCI 5840 - Independent Study

CSCI 5866 - Advanced Mobile and Ubiquitous Systems

CSCI 5920 - Computer Game Design and Programming

CSCI 5941 - Directed Study: Programming Project

CSCI 6010 - Principles of Programming

CSCI 6020 - Data Structures and Algorithms

CSCI 6030 - Computer Systems & Application

CSCI 6040 - Teaching Practice of Computer Science

CSCI 6595 - Computational Methods in Nonlinear Programming

CSCI 6664 - Numerical Linear Algebra

CSCI 6950 - Master's Thesis

CSCI 6960 - Master's Report

CSCI 6970 - MS Research Report

CSCI 7002 - Computer Security

CSCI 7173 - Computational Complexity and Algorithms

CSCI 7200 - Advances in Management Information Systems

CSCI 7210 - Topics in Analytical Research in Management Information Systems

CSCI 7211 - Topics in Behavioral-Organizational Research in Management Information Systems

CSCI 7502 - Research Methods

CSCI 7551 - Parallel and Distributed Systems

CSCI 7552 - Advanced Topics in Parallel Processing

CSCI 7574 - Advanced Topics in Operating Systems

CSCI 7582 - Artificial Intelligence

CSCI 7595 - Computer Animation

CSCI 7654 - Algorithms for Communication Networks

CSCI 7702 - Data Mining Concepts and Techniques

CSCI 7702 - Data Mining Concepts and Techniques

CSCI 7711 - Bioinformatics I

CSCI 7712 - Bioinformatics II

CSCI 7765 - Computer Networks

CSCI 7799 - Cloud Computing

CSCI 7800 - Special Topics

CSCI 7840 - Independent Study

CSCI 7866 - Advanced Mobile and Ubiquitous Systems

CSCI 8990 - Doctoral Dissertation

Counseling

COUN 5000 - Human Sexuality

COUN 5010 - Counseling Theories

COUN 5050 - Foundations of Student Affairs

COUN 5070 - Law and Ethics in Higher Ed and Student Affairs

COUN 5100 - Techniques of Counseling

COUN 5110 - Group Counseling

COUN 5120 - Counseling Grief and Loss

COUN 5130 - College Student Development

COUN 5150 - Family Counseling/Therapy

COUN 5160 - Techniques in Family Counseling/Therapy

COUN 5170 - Issues In Family Studies

COUN 5180 - Counseling Couples

COUN 5280 - Addictions Counseling

COUN 5330 - Counseling Issues and Ethics

COUN 5400 - Career Development

COUN 5425 - Developing & Implementing a School Counseling Program: ASCA

COUN 5500 - Diversity, Inclusion, Social Justice in Higher Education

COUN 5810 - Multicultural Counseling Issues for Individuals and Families

COUN 5815 - Introduction to School Counseling

COUN 5820 - Strategies of Agency Counseling

COUN 5825 - The Business Of Private Practice

COUN 5830 - Special Topics

COUN 5835 - Gender And Sexual Orientation

COUN 5840 - Independent Study: COUN

COUN 5910 - Practicum in COUN

COUN 5915 - Practicum in School Counseling

COUN 5930 - Internship in Counseling

COUN 6000 - Introduction to Sex Therapy

COUN 6100 - Spiritual Dimensions of Counseling

COUN 6140 - Counseling Children, Adolescents and Their Parents

COUN 6160 - Advanced Assessment: Theory and Treatment in Family Systems

COUN 6230 - Developmental Counseling in Schools: Prevention & Intervention

COUN 6240 - Consultation Strategies

COUN 6250 - Mental Health Diagnosis

COUN 6310 - Facilitating Sociopolitical Development Theory & Actn

COUN 6320 - Participatory Research Methods in Context

COUN 6330 - Advanced Seminar in Counseling and Psychotherapy

COUN 6350 - Theories of Personality Development and Change

COUN 6810 - Advanced Multicultural Counseling

COUN 6840 - Independent Study

COUN 6910 - Advanced Practicum in Counseling

COUN 6950 - Master's Thesis

COUN 7100 - Advanced Theories and Techniques in Psychotherapy

COUN 7310 - Facilitating Sociopolitical Development Theory & Actn

COUN 7320 - Participatory Research Methods in Context

COUN 7800 - Supervision in Counseling and Psychotherapy

Criminal Justice

CRJU 1000 - Criminology and Criminal Justice: An Overview

CRJU 1111 - Freshman Seminar

CRJU 2041 - Crime Theory and Causes

CRJU 3100 - Criminal Justice Research Methods

CRJU 3150 - Statistics for Criminal Justice

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 4042 - Corrections

CRJU 4043 - Law Enforcement

CRJU 4044 - Courts and Judicial Process

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 101

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 4540 - Analysis in Law Enforcement

CRJU 4600 - Special Topics in Criminal Justice

CRJU 4840 - Independent Study: CRJU

CRJU 4939 - Internship

CRJU 5001 - CJ Systems, Policies/Practice

CRJU 5002 - Criminological Theory

CRJU 5003 - Research Methods

CRJU 5004 - Statistics

CRJU 5005 - Law & Society

CRJU 5200 - Wrongful Convictions

CRJU 5210 - Prisoner Reentry

CRJU 5220 - The American Jury System

CRJU 5250 - Criminal Offenders

CRJU 5260 - Crime and Literature

CRJU 5270 - Case Studies in Crim Justice

CRJU 5280 - Computer Crime

CRJU 5301 - Crime and Media

CRJU 5320 - Police Administration

CRJU 5325 - Qualitative Methods for Criminal Justice

CRJU 5330 - Gangs and Criminal Organizations

CRJU 5331 - Analysis in Law Enforcement

CRJU 5361 - Capstone Seminar

CRJU 5391 - Sex Offenders and Offenses

CRJU 5410 - Victimology

CRJU 5420 - Violence in Society

CRJU 5430 - Drugs, Alcohol and Crime

CRJU 5450 - Law of All Hazards Management

CRJU 5510 - Contemporary Issues in Law Enforcement

CRJU 5520 - Corrections

CRJU 5530 - Community Corrections

CRJU 5540 - Juvenile Justice Administration

CRJU 5550 - Criminal Justice Policy and Planning

CRJU 5551 - Courts, Law & Justice

CRJU 5552 - Criminal Justice Ethics

CRJU 5553 - Women and Crime

CRJU 5555 - Profiling Criminal Behavior

CRJU 5571 - The Social Organization of Crime

CRJU 5572 - Race, Crime and Justice

CRJU 5574 - White Collar Crime

CRJU 5575 - The Mentally Disordered Offender

CRJU 5576 - Social Science in the Criminal Justice System

CRJU 5650 - Public Policies for Homeland Security and Disasters

CRJU 5655 - Principles of Emergency Management

CRJU 5910 - Nature and Scope of Interpersonal Violence

CRJU 5920 - The Psychology of Interpersonal Violence

CRJU 5930 - Interpersonal Violence Law and Public Policy

CRJU 5940 - Interpersonal Violence, Advocacy, and Social Change

CRJU 6171 - Murder 101

CRJU 6600 - Special Topics in Criminal Justice

CRJU 6840 - Independent Study: CRJU

CRJU 6910 - Internship in Criminal Justice

CRJU 6950 - Master's Thesis

CRJU 7200 - Wrongful Convictions

CRJU 7210 - Prisoner Reentry

CRJU 7220 - The American Jury System

CRJU 7250 - Criminal Offenders

CRJU 7260 - Crime and Literature

CRJU 7270 - Case Studies in Criminal Justice

CRJU 7280 - Leadership in the Modern Criminal Justice System

CRJU 7301 - Crime and Media

CRJU 7320 - Seminar: Police Administration

CRJU 7325 - Qualitative Methods for Criminal Justice

CRJU 7330 - Gangs and Criminal Organizations

CRJU 7391 - Sex Offenders and Offenses

CRJU 7410 - Victimology

CRJU 7420 - Violence in Society

CRJU 7430 - Drugs, Alcohol and Crime

CRJU 7510 - Seminar: Contemporary Issues in Law Enforcement

CRJU 7520 - Seminar: Corrections

CRJU 7530 - Seminar: Community Corrections

CRJU 7540 - Seminar: Juvenile Justice Administration

CRJU 7550 - Seminar: Criminal Justice Policy Analysis

CRJU 7551 - Courts, Law & Justice

CRJU 7552 - Seminar: Criminal Justice Ethics

CRJU 7553 - Seminar: Women and Criminal Justice

CRJU 7571 - Advanced Seminar: The Social Organization of Crime

CRJU 7572 - Advanced Seminar: Race, Crime and Justice

CRJU 7574 - Advanced Seminar: White Collar Crime

CRJU 7575 - Advanced Seminar: The Mentally Disordered Offender

CRJU 7576 - Advanced Seminar: Social Science in the Criminal Justice System

CRJU 7600 - Special Topics in Criminal Justice

CRJU 7910 - Women and Violence: a Sociological Perspective

CRJU 7920 - Psychology of Violence Against Women

CRJU 7930 - Battered Women and the Legal System

CRJU 7940 - Interpersonal Violence, Advocacy, and Social Change

CRJU 8840 - Independent Study

CRJU 8990 - Doctoral Dissertation

Cultrly & Lingstcly Dvrse Educ

CLDE 1000 - Language, Power & Identity: International Perspectives

CLDE 4020 - Responsive Classroom Communities

CLDE 4030 - Language Development of Multilingual Learners

CLDE 4160 - History & Law of Bilingual & Immigrant Education

CLDE 4820 - Teaching Multilingual Learners

CLDE 5010 - Foundations of Language & Culture in Education

CLDE 5030 - Language Development of Multilingual Learners: Advanced

CLDE 5032 - English Linguistic Foundations for SLA & TESOL

CLDE 5035 - Connecting Multilingual Theories to Practice

CLDE 5050 - Assessment & Advocacy for Multilingual Learners

CLDE 5070 - Linguistic Analysis of English

CLDE 5140 - Language, Culture & Educational Equity

CLDE 5160 - History & Law of Bilingual & Immigrant Education

CLDE 5170 - Race, Class and Culture in Public Schools

CLDE 5180 - Working with Communities and Families

CLDE 5190 - Culturally Responsive Pedagogy and Practices

CLDE 5430 - Gender as Culture

CLDE 5800 - Language Variation & Implications for Teaching

CLDE 5820 - Teaching Multilingual Learners, Advanced

CLDE 5825 - Methods of Content Teaching for Bilingual Learners

CLDE 5830 - STR Culminating Experience

CLDE 5835 - Special Topics: Literacy for Bilingual Learners

CLDE 5840 - Independent Study: CLDE

CLDE 5920 - Immigration through Children's Literature

CLDE 6912 - Teacher Inquiry in Multilingual Classrooms

CLDE 6950 - Master's Thesis

CLDE 7410 - Communication & Control: Systemic Change

Decision Sciences For Business

DSCI 3780 - Supply Chain Management

DSCI 6440 - Quality and Process Improvement

DSCI 6822 - Services Operations

Design & Planning

DSPL 7011 - Research Design

DSPL 7012 - Theories of Planning

DSPL 7013 - Environment and Behavior

DSPL 7014 - Colloquium

DSPL 7015 - Historiography and Architecture

DSPL 7016 - Architecture, in Theory

DSPL 7017 - Pro-Seminar

DSPL 7686 - Special Topics in Design and Planning

DSPL 7840 - Independent Study: DSPL

DSPL 7950 - Doctoral Thesis Research

Doctoral Studies in Educ Prog

DSEP 6000 - Academic Writing for Doctoral Students

DSEP 6010 - APA Conventions in Academic Writing

DSEP 6020 - Advanced Academic Writing for Doctoral Students

DSEP 7830 - Special Topics

DSEP 7840 - Independent Study: DSEP

DSEP 8994 - Doctoral Dissertation

Early Childhood Education

ECED 2931 - ECE Field Experience I

ECED 2932 - ECE Field Experience II

ECED 4000 - ECE as a Profession

ECED 4010 - Social Studies & Creative Arts

ECED 4020 - Science for P-2 Classrooms

ECED 4030 - Nutrition, Health, and Safety

ECED 4040 - Administration of Early Childhood Care and Education Programs

ECED 4060 - Working with Families, Professionals, and Communities

ECED 4070 - Development and Education of Infant and Toddlers

ECED 4102 - Developmentally Appropriate Curriculum Methods and Techniques

ECED 4200 - Assessment for Early Childhood Classrooms

ECED 4202 - Classroom Management

ECED 4300 - Exceptional Learners in the Early Childhood Classroom

ECED 4410 - Using Coaching Skills in Early Childhood Settings

ECED 4420 - Connecting Awareness With Application & Deepening Of Practice

ECED 4430 - Attuning For Personal And Organizational Change

ECED 4910 - Student Teaching: Infant Toddler

ECED 4912 - Student Teaching: Preschool

ECED 4914 - Student Teaching: Primary K-3

ECED 4931 - Internship I & Collaborative Learning Community

ECED 4932 - Internship II & Collaborative Learning Community

ECED 5010 - Curriculum in Early Childhood Education

ECED 5040 - Administrative Seminar

ECED 5060 - Working with Families and Communities

ECED 5070 - Social Competence and Classroom Supports

ECED 5080 - Language and Literacy in Young Children

ECED 5102 - Introduction to Developmentally Appropriate Curriculum

ECED 5104 - Advanced Developmentally Appropriate Curriculum

ECED 5110 - Advanced Infant and Toddler Development:

ECED 5200 - Screening and Assessment of Young Children

ECED 5202 - Classroom Management to Promote Positive Behavior

ECED 5210 - Overview of Infant Toddler Autism Services

ECED 5211 - Applied Treatment Delivery for Infants and Toddlers with ASD

ECED 5212 - Coaching for Families Infants/Toddlers w/ Autism

ECED 5300 - Pedagogical Leadership

ECED 5310 - Professional Development

ECED 5320 - Reflective Leadership and Capstone

ECED 5330 - Leadership and Ethics

ECED 5350 - Policy and Advocacy in Early Childhood

ECED 5410 - Using Coaching Skills in Early Childhood Settings

ECED 5420 - Connecting Awareness With Application & Deepening Of Practice

ECED 5430 - Attuning For Personal And Organizational Change

ECED 5800 - Workshop: Topics in Early Childhood Education

ECED 5840 - Independent Study

ECED 6010 - Literacy and Mathematics K-2

ECED 6100 - Medical and Physiological Aspects of Development

ECED 6200 - Early Intervention Strategies

ECED 6690 - Seminar: Research and Current Issues in Early Childhood Education

ECED 6910 - Early Childhood Special Education Infancy Practicum

ECED 6911 - Practicum in Early Childhood Education

ECED 6912 - Early Childhood Special Education Preschool Practicum

ECED 6914 - Early Childhood Special Education Primary Practicum

ECED 6950 - Master's Thesis

ECED 7000 - Early Childhood Leadership Seminar I

ECED 7002 - Early Childhood Leadership Seminar II

ECED 7004 - Early Childhood Leadership Seminar III

ECED 7070 - Social Competence and Classroom Supports

ECED 7200 - Early Intervention Strategies

ECED 7500 - Screening and Assessment of Young Children

Economics

ECON 1010 - Economics of Social Issues

ECON 1111 - Freshman Seminar

ECON 2012 - Principles of Economics: Macroeconomics

ECON 2022 - Principles of Economics: Microeconomics

ECON 2939 - Internship

ECON 3050 - Decision Making

ECON 3100 - Economics of Race and Gender

ECON 3300 - Economics of Crime and Punishment

ECON 3366 - Managerial Economics

ECON 3400 - Economics of Sex and Drugs

ECON 3801 - Introduction to Mathematical Economics

ECON 3811 - Statistics with Computer Applications

ECON 3939 - Internship

ECON 4001 - Topics in Economics

ECON 4030 - Data Analysis with SAS

ECON 4050 - Special Economic Problems

ECON 4071 - Intermediate Microeconomic Theory

ECON 4081 - Intermediate Macroeconomic Theory

ECON 4090 - History of Economic Thought

ECON 4090 - History of Economic Thought

ECON 4101 - Applied Statistics Using SAS and SPSS I

ECON 4102 - Applied Statistics Using SAS and SPSS II

ECON 4110 - Money and Banking

ECON 4150 - Economic Forecasting

ECON 4210 - Public Finance

ECON 4230 - Law and Economics

ECON 4240 - Economic Policy Analysis

ECON 4310 - Managerial Economics

ECON 4320 - Financial Economics

ECON 4410 - International Trade

ECON 4420 - International Finance

ECON 4430 - Economic Growth

ECON 4530 - Economics of Natural Resources

ECON 4540 - Environmental Economics

ECON 4550 - Game Theory and Economic Applications

ECON 4610 - Labor Economics

ECON 4640 - Sports Economics

ECON 4660 - Health Economics.

ECON 4716 - Comparative Economic Systems

ECON 4740 - Industrial Organization

ECON 4770 - Economic Development--Theory and Problems

ECON 4811 - Introduction to Econometrics

ECON 4840 - Independent Study: ECON

ECON 4850 - Honors Independent Study: ECON

ECON 4880 - Directed Research

ECON 5030 - Data Analysis with SAS

ECON 5050 - Special Economic Problems

ECON 5051 - Data Analysis and Research Methodology

ECON 5052 - Data Analysis and Research Methodology II

ECON 5073 - Microeconomic Theory

ECON 5083 - Macroeconomic Theory

ECON 5090 - History of Economic Thought

ECON 5150 - Economic Forecasting

ECON 5310 - Managerial Economics

ECON 5320 - Financial Economics

ECON 5410 - International Trade

ECON 5530 - Economics of Natural Resources

ECON 5540 - Environmental Economics

ECON 5660 - Health Economics

ECON 5740 - Industrial Organization

ECON 5800 - Special Topics

ECON 5803 - Mathematical Economics

ECON 5813 - Econometrics I

ECON 5823 - Econometrics II

ECON 5840 - Independent Study

ECON 5880 - Directed Research

ECON 5939 - Internship

ECON 5950 - Master's Thesis

ECON 6010 - Advanced Microeconomic Theory

ECON 6020 - Advanced Macroeconomic Theory

ECON 6053 - Seminar In Applied Economics

ECON 6054 - Seminar In Applied Economics II

ECON 6060 - Special Topics

ECON 6073 - Research Seminar

ECON 6110 - Money and Central Banking

ECON 6210 - Public Finance

ECON 6410 - International Trade

ECON 6420 - International Finance

ECON 6610 - Labor Economics

ECON 6770 - Economic Growth and Development

ECON 6801 - Advanced Mathematical Economics

ECON 6810 - Econometrics and Forecasting

ECON 6840 - Independent Study

ECON 6950 - Master's Thesis

Education Admin & Supervision

EDUC 5000 - Special Topics: Administrative Leadership and Policy Studies

EDUC 5010 - Paraeducator Supervision Academy

EDUC 5015 - Developmental Intervention Supervisor Academy (DISA)

EDUC 5020 - Trainers of Paraeducator Academy

EDUC 5025 - Developmental Intervention Trainers Academy (DITA)

EDUC 5030 - Top Cadre of Trainers (TOPCAT) Seminar

EDUC 5040 - Mentoring Novice and Pre-Service Teachers

EDUC 5751 - Principal/Administrator Licensing I

EDUC 5752 - Principal Administrator Licensing II

EDUC 5753 - Principal/Administrator Licensing III

EDUC 5754 - Principal or Administrator Licensing IV

EDUC 5836 - Workshop: Educational Administration, Curriculum and Supervision

EDUC 5840 - Independent Study: EDUC

EDUC 5950 - Master's Thesis

EDUC 6000 - Special Topics: Administrative Leadership and Policy Studies

EDUC 6840 - Independent Study

EDUC 6951 - Master's Thesis

EDUC 7100 - Leadership in Education

EDUC 7500 - Strategic Human Capital Development

EDUC 7510 - Strategic Organizational Management

EDUC 7520 - Strategic System Improvement

EDUC 7530 - Strategic Leadership Development

EDUC 7840 - Independent Study: EDUC

Education and Human Dvelpmnt

EDHD 1930 - Community Based Field Experience & Seminar

EDHD 2050 - Current Topics in Teaching, Learning & Development

EDHD 2840 - Independent Study in Teaching, Learning & Development

EDHD 2910 - Service Learning in TLED

EDHD 2930 - Learning & Development Field Experience & Seminar

EDHD 3930 - Diverse Learners Field Experience & Seminar

EDHD 4050 - Special Topics in Teaching, Learning & Development

EDHD 5110 - Human Learning

EDHD 5180 - Psychology of Gifted, Talented and Creative Children

EDHD 5200 - Social Psychology of Learning

EDHD 5240 - Cognition and Instruction

EDHD 5260 - Child Study and Observation

EDHD 5840 - Independent Study

EDHD 5910 - Practicum in Education and Human Development

EDHD 6100 - Advanced Child Growth and Development

EDHD 6140 - Social Contexts of Adolescence and Schooling

EDHD 6200 - Human Development Over the Life Span

EDHD 6220 - Adult Development

EDHD 6230 - Mind, Brain, and Education

EDHD 6250 - Advanced Abnormal Psychology

EDHD 6350 - Theories of Personality Development and Change

EDHD 6600 - Motivation in Contexts

EDHD 6750 - Designing Environment for Learning and Development

EDHD 6840 - Independent Study: EDHD

EDHD 6950 - Master's Thesis

EDHD 7100 - Advanced Child Growth and Development

EDHD 7120 - Family Dynamics

EDHD 7140 - Social Contexts of Adolescence and Schooling

EDHD 7200 - Human Development Over the Life Span

EDHD 7220 - Adult Development

EDHD 7600 - Motivation in Contexts

EDHD 7712 - Learning and Human Development

Educational Foundations

EDFN 1000 - Equality, Rights & Education

EDFN 1111 - Freshman Seminar

EDFN 1111 - Freshman Seminar

EDFN 3000 - Undocumented Mexican Immigration

EDFN 4000 - Food Justice in City & Schools

EDFN 4001 - Problematizing Whiteness: Educating for Racial Justice

EDFN 4010 - Social Foundations and Cultural Diversity in Urban Education

EDFN 5000 - Food Justice in City & Schools

EDFN 5001 - Problematizing Whiteness: Educating for Racial Justice

EDFN 5010 - Sci Fndts, Cnlrl Dvrsty Urb Ed

EDFN 5050 - Critical Issues in American Education

EDFN 5070 - Curriculum Theories in Urban Education

EDFN 5240 - Culture of Education Policy

EDFN 5700 - Global Education and 21st Century Learning

EDFN 7240 - Culture of Education Policy

EDFN 7250 - School and Society

EDFN 7400 - Epistemologies: Ways Knowing, Res Paradigms, & Counter-Epistemologies

EDFN 7410 - Power and Privilege: The Social Construction of Difference

EDFN 7420 - Foundations of Education in Urban and Diverse Communities

EDFN 7430 - Working with Families and Communities

EDFN 7833 - Culture and Critical Theory

Educational Leadership & Innovation

EDLI 8994 - Doctoral Dissertation PhD

Electrical Engineering

ELEC 1201 - Introduction to Electrical Engineering

ELEC 1510 - Logic Design

ELEC 1520 - Embedded Systems Engineering I

ELEC 2132 - Circuit Analysis I

ELEC 2142 - Circuit Analysis II

ELEC 2520 - Embedded Systems Engineering 2

ELEC 2531 - Logic Laboratory

ELEC 2552 - Sophomore Circuits Laboratory

ELEC 3030 - Electric Circuits and Systems

ELEC 3133 - Electromagnetic Fields

ELEC 3164 - Energy Conversion

ELEC 3215 - Electronics I

ELEC 3225 - Electronics II

ELEC 3316 - Linear Systems Theory

ELEC 3651 - Digital Hardware Design

ELEC 3715 - Electronics Laboratory

ELEC 3724 - Energy Conversion Laboratory

ELEC 3735 - Junior Laboratory

ELEC 3817 - Engineering Probability and Statistics

ELEC 3939 - Internship

ELEC 4005 - IC Design

ELEC 4025 - Device Electronics

ELEC 4133 - Advanced Electromagnetic Fields

ELEC 4134 - Introduction to Microwave Circuit Design

ELEC 4136 - Control Systems Analysis

ELEC 4164 - Electric Drive Systems

ELEC 4170 - Electric Drive Systems Laboratory

ELEC 4174 - Power Electronic Systems

ELEC 4184 - Power Systems Analysis

ELEC 4225 - Advanced Electronics

ELEC 4247 - Communication Theory

ELEC 4248 - Digital Communication Systems

ELEC 4249 - Space Communications Systems

ELEC 4276 - Digital Control Systems

ELEC 4309 - Senior Design Project I

ELEC 4319 - Senior Design Project II

ELEC 4333 - Introduction to Computational Electromagnetics

ELEC 4373 - Optical Engineering

ELEC 4375 - Engineering Neuroscience

ELEC 4406 - Control Systems Laboratory

ELEC 4423 - Radio Frequency Laboratory

ELEC 4435 - Advanced Electronics Laboratory

ELEC 4444 - Power Systems Laboratory

ELEC 4466 - Adaptive Control System Design

ELEC 4467 - Communications Laboratory

ELEC 4474 - Power Electronics Laboratory

ELEC 4501 - Microprocessor Based Design

ELEC 4511 - Hardware-Software Interface

ELEC 4521 - Microprocessor Laboratory

ELEC 4555 - VLSI Circuit Simulation

ELEC 4561 - Hardware-Software Lab

ELEC 4637 - Digital Signal Processing

ELEC 4644 - Introduction to Biomedical Imaging

ELEC 4678 - Quantum Electronics

ELEC 4688 - Introduction to Nondestructive Testing

ELEC 4723 - High Performance Computer Architecture

ELEC 4727 - Computer Vision & Image Processing Acceleration

ELEC 4755 - Renewable Energy Systems

ELEC 4800 - Special Topics

ELEC 4840 - Independent Study: ELEC

ELEC 5005 - IC Design

ELEC 5025 - Device Electronics

ELEC 5033 - Advanced Electromagnetic Fields

ELEC 5133 - Electromagnetic Radiation and Antenna

ELEC 5134 - Introduction to Microwave Circuit Design

ELEC 5164 - Electric Drive Systems

ELEC 5170 - Electric Drives Systems Laboratory

ELEC 5174 - Power Electronic Systems

ELEC 5184 - Power Systems Analysis

ELEC 5194 - Power Systems Operation and Control

ELEC 5210 - Optimization Methods in Engineering

ELEC 5220 - Methods of Engineering Analysis

ELEC 5230 - Advanced Linear Systems

ELEC 5248 - Digital Communication Systems

ELEC 5249 - Space Communications Systems

ELEC 5250 - Information Theory

ELEC 5252 - Computer Communication Networks

ELEC 5276 - Digital Control Systems

ELEC 5294 - Advanced Power Electronic Systems

ELEC 5333 - Introduction to Computational Electromagnetics

ELEC 5334 - Advanced Computational Electromagnetics

ELEC 5373 - Optical Engineering

ELEC 5375 - Engineering Neuroscience

ELEC 5423 - Radio Frequency Laboratory

ELEC 5433 - Fundamentals and Applications of Plasmas

ELEC 5436 - Nonlinear Control Systems I

ELEC 5444 - Power System Laboratory

ELEC 5446 - Introduction to Modern Control Theory

ELEC 5455 - Computer Methods for Device Electronics

ELEC 5456 - Sampled Data and Digital Control Systems

ELEC 5466 - Adaptive Control System Design

ELEC 5474 - Power Electronics Laboratory

ELEC 5476 - Optimal Control Systems

ELEC 5486 - Modeling and System Identification

ELEC 5496 - Robust Control

ELEC 5501 - Microprocessor-Based Design

ELEC 5511 - Hardware-Software Interface

ELEC 5521 - Design and Test of Digital Systems

ELEC 5522 - VLSI Systems

ELEC 5551 - Pattern Recognition

ELEC 5555 - VLSI Circuit Simulation

ELEC 5617 - Random Processes for Engineers

ELEC 5627 - Stochastic Point Processes

ELEC 5637 - Digital Signal Processing

ELEC 5638 - Digital Image Processing

ELEC 5644 - Introduction to Biomedical Imaging

ELEC 5647 - Adaptive Signal Processing

ELEC 5648 - Blind Signal Processing

ELEC 5657 - Detection and Estimation Theory

ELEC 5667 - Wavelet Theory and Applications

ELEC 5678 - Quantum Electronics

ELEC 5687 - Optical Communication Systems

ELEC 5688 - Introduction to Nondestructive Testing

ELEC 5697 - Optical and Spatial Information Processing

ELEC 5710 - Advanced Electric Drive Systems

ELEC 5714 - Energy Systems Analysis

ELEC 5720 - Practical Electric Drive Systems

ELEC 5723 - High Performance Computer Architecture

ELEC 5725 - Advanced Electric Machinery

ELEC 5727 - Computer Vision & Image Processing Acceleration

ELEC 5755 - Renewable Energy Systems

ELEC 5764 - Power Distribution Systems

ELEC 5774 - Power Systems Dynamics and Protection

ELEC 5800 - Special Topics

ELEC 5840 - Independent Study: ELEC

ELEC 5980 - Statistical Quality Control

ELEC 6000 - Statistical Signal Processing

ELEC 6648 - Blind Signal Processing

ELEC 6800 - Special Topics

ELEC 6950 - Master's Thesis

ELEC 6960 - Master's Report

ELEC 7800 - Special Topics

ELEC 7801 - Special Topics

ELEC 7802 - Special Topics

ELEC 7803 - Special Topics

ELEC 7804 - Special Topics

ELEC 7805 - Special Topics

ELEC 7806 - Special Topics

ELEC 7807 - Special Topics

ELEC 7808 - Special Topics

ELEC 7809 - Special Topics

ELEC 7840 - Independent Study: ELEC

ELEC 8990 - Doctoral Dissertation

Engineering

ENGR 1000 - Introduction to Engineering

ENGR 1111 - Psychological and Social Implications of Technology

ENGR 1208 - Special Topics

ENGR 2208 - Special Topics

ENGR 3208 - Special Topics

ENGR 3400 - Technology and Culture

ENGR 3600 - International Dimensions of Technology and Culture

ENGR 3995 - Global Technology, Business & Culture

ENGR 4150 - Seminar: Special Topics in Engineering

ENGR 4208 - Special Topics

ENGR 4800 - Science Engineering and Culture for Undergraduates

ENGR 4840 - Independent Study

ENGR 5150 - Seminar: Special Topics in Engineering

ENGR 5208 - Special Topics

ENGR 5301 - Systems Engineering: Principles and Practice

ENGR 5302 - Systems Engineering: Planning and Management

ENGR 5303 - Special Topics: Systems Engineering

ENGR 5800 - Long Range Infrastructure Planning and Design: Colorado 2050

ENGR 7150 - Seminar: Special Topics in Engineering

English

ENGL 1010 - Writing Workshop

ENGL 1020 - Core Composition I

ENGL 1050 - Vocabulary for Professionals

ENGL 1111 - Freshman Seminar

ENGL 1200 - Introduction to Fiction

ENGL 1400 - Literary Studies

ENGL 1601 - Telling Tales: Narrative Art in Literature and Film

ENGL 2030 - Core Composition II

ENGL 2060 - Introduction to Writing Studies

ENGL 2070 - Grammar, Rhetoric and Style

ENGL 2154 - Introduction to Creative Writing

ENGL 2250 - Introduction to Film

ENGL 2300 - Topics in Literature and Film

ENGL 2310 - Topics in Literature and Film

ENGL 2320 - Topics in Literature and Film

ENGL 2330 - Topics in Literature and Film

ENGL 2340 - Topics in Literature and Film

ENGL 2390 - Writing the Short Script

ENGL 2415 - Introduction to Movie Writing

ENGL 2450 - Introduction to Literature

ENGL 2510 - Greek and Roman Mythology

ENGL 2520 - The Bible as Literature

ENGL 2600 - Great Works in British and American Literature

ENGL 2840 - Independent Study: ENGL

ENGL 3001 - Critical Writing

ENGL 3020 - Poetry Workshop

ENGL 3050 - Fiction Workshop

ENGL 3070 - Film History I

ENGL 3075 - Film Genres

ENGL 3080 - Film History II

ENGL 3084 - Multimedia Composition

ENGL 3085 - Film Directors

ENGL 3106 - Advocate Practicum

ENGL 3154 - Technical Writing

ENGL 3160 - Language Theory

ENGL 3170 - Business Writing

ENGL 3200 - From Literature to Film

ENGL 3300 - Topics in Film

ENGL 3310 - Topics in Film

ENGL 3320 - Topics in Film

ENGL 3330 - Topics in Literature

ENGL 3340 - Topics in Literature

ENGL 3350 - Topics in Literature

ENGL 3355 - Genre Topic

ENGL 3405 - Topics in Writing

ENGL 3415 - Screenwriting Workshop

ENGL 3416 - Magazine Writing

ENGL 3417 - Writing for the Mass Media

ENGL 3450 - Twentieth Century Women Writers

ENGL 3480 - Modern Drama

ENGL 3520 - Religious Narratives

ENGL 3661 - Shakespeare

ENGL 3700 - American Literature to the Civil War

ENGL 3750 - American Literature after the Civil War

ENGL 3795 - Race and Ethnicity in American Literature

ENGL 3798 - International Perspectives in Literature and Film

ENGL 3840 - Independent Study: ENGL

ENGL 3939 - Internship

ENGL 3995 - Travel Study

ENGL 4000 - Studies of Major Authors

ENGL 4025 - Advanced Poetry Workshop

ENGL 4055 - Advanced Fiction Workshop

ENGL 4080 - History of English Language

ENGL 4088 - Literary Editing: Copper Nickel

ENGL 4160 - Poetics

ENGL 4166 - History of American Poetry

ENGL 4175 - Writing in the Sciences

ENGL 4180 - Argumentation and Logic

ENGL 4190 - Special Topics in Rhetoric and Writing

ENGL 4200 - History of the English Novel I

ENGL 4210 - History of the English Novel II

ENGL 4220 - African-American Literature

ENGL 4230 - The American Novel

ENGL 4235 - Faulkner

ENGL 4236 - The American Short Story

ENGL 4240 - Topics in Contemporary American Literature

ENGL 4250 - Twentieth Century Fiction

ENGL 4280 - Proposal and Grant Writing

ENGL 4290 - Rhetoric and the Body

ENGL 4300 - History of British Drama

ENGL 4306 - Survey of Feminist Thought

ENGL 4308 - Contemporary Feminist Thought

ENGL 4320 - History of Poetry in English

ENGL 4350 - History of American Drama

ENGL 4400 - Old English I

ENGL 4410 - Old English II: Beowulf

ENGL 4416 - Advanced Magazine Writing

ENGL 4420 - Film Theory and Criticism

ENGL 4460 - Contemporary World Literature

ENGL 4500 - Medieval Literature

ENGL 4510 - Whores and Saints: Medieval Women

ENGL 4520 - English Renaissance

ENGL 4530 - Milton

ENGL 4540 - Restoration and the 18th Century

ENGL 4560 - English Romanticism

ENGL 4580 - The Victorian Age

ENGL 4600 - Modernism

ENGL 4601 - Principles and Practices of Second Language Acquisition

ENGL 4610 - Narrative: Form and Theory

ENGL 4651 - Second Language Writing

ENGL 4720 - Honors in English

ENGL 4730 - Chaucer

ENGL 4735 - Philosophy and Literature

ENGL 4740 - Honors in Writing

ENGL 4745 - Humanistic Writing About Medicine and Biology

ENGL 4770 - Topics in English: Film and Literature

ENGL 4800 - Special Topics in Creative Writing

ENGL 4810 - Literary Editing Practicum

ENGL 4820 - Senior Poetry Workshop

ENGL 4830 - Advanced Rhetorical Analysis

ENGL 4840 - Independent Study: ENGL

ENGL 4850 - Senior Fiction Workshop

ENGL 4880 - Directed Research

ENGL 4920 - Directed Readings

ENGL 4990 - Senior Writing Project in Creative Writing or Film Studies

ENGL 4991 - Senior Seminar in Writing

ENGL 4995 - Senior Writing Project

ENGL 4999 - Literary Studies Senior Seminar

ENGL 5000 - Studies of Major Authors

ENGL 5001 - Special Topics

ENGL 5080 - History of the English Language

ENGL 5093 - Teaching of Writing

ENGL 5100 - Introduction to Graduate Studies

ENGL 5110 - Denver Writing Project

ENGL 5120 - Denver Writing Project Advanced Institute

ENGL 5135 - English Language Study

ENGL 5145 - Theory

ENGL 5150 - Research Methods

ENGL 5155 - Genres of Writing

ENGL 5160 - Poetics

ENGL 5165 - Literacy and Technology

ENGL 5166 - History of American Poetry

ENGL 5171 - Language Theory

ENGL 5175 - Writing in the Sciences

ENGL 5190 - Special Topics in Rhetoric and Writing

ENGL 5200 - History of the English Novel I

ENGL 5210 - History of the English Novel II

ENGL 5220 - African-American Literature

ENGL 5230 - The American Novel

ENGL 5235 - Faulkner

ENGL 5236 - The American Short Story

ENGL 5240 - Topics In Contemporary American Literature

ENGL 5250 - Twentieth Century Fiction

ENGL 5280 - Proposal and Grant Writing

ENGL 5300 - History of British Drama

ENGL 5306 - Survey of Feminist Thought

ENGL 5308 - Contemporary Feminist Thought

ENGL 5320 - History of Poetry in English

ENGL 5350 - History of American Drama

ENGL 5400 - Old English I

ENGL 5410 - Old English II: Beowulf

ENGL 5420 - Film Theory and Criticism

ENGL 5460 - Contemporary World Literature

ENGL 5500 - Medieval Literature

ENGL 5510 - Whores and Saints: Medieval Women

ENGL 5520 - English Renaissance

ENGL 5530 - Milton

ENGL 5540 - Restoration and the 18th Century

ENGL 5560 - English Romanticism

ENGL 5580 - The Victorian Age

ENGL 5600 - Modernism

ENGL 5601 - Principles and Practices of Second Language Acquisition

ENGL 5610 - Narrative: Form and Theory

ENGL 5650 - American Literature to the Civil War

ENGL 5651 - Second Language Writing

ENGL 5655 - American Literature: Civil War to the Cold War

ENGL 5730 - Chaucer

ENGL 5735 - Philosophy and Literature

ENGL 5745 - Humanistic Writing About Medicine and Biology

ENGL 5770 - Topics in English: Film and Literature

ENGL 5840 - Independent Study: ENGL

ENGL 5880 - Directed Research

ENGL 5913 - Practicum in Language and Rhetoric

ENGL 5939 - Internship

ENGL 6001 - Critical Theory in Literature and Film

ENGL 6002 - Rhetorical Theory

ENGL 6010 - Studies of Major Authors

ENGL 6011 - Studies in Major Authors

ENGL 6012 - Studies in Major Authors

ENGL 6013 - Studies in Major Authors

ENGL 6014 - Studies in Major Authors

ENGL 6015 - Studies in Major Authors

ENGL 6016 - Studies in Major Authors

ENGL 6017 - Studies in Major Authors

ENGL 6018 - Studies in Major Authors

ENGL 6019 - Studies in Major Authors

ENGL 6090 - Studies in Major Authors

ENGL 6110 - Special Topics in Literature

ENGL 6111 - Special Topics in Literature

ENGL 6112 - Special Topics in Literature

ENGL 6113 - Special Topics in Literature

ENGL 6114 - Special Topics in Literature

ENGL 6115 - Special Topics in Literature

ENGL 6116 - Special Topics in Literature

ENGL 6117 - Special Topics in Literature

ENGL 6118 - Special Topics in Literature

ENGL 6119 - Special Topics in Literature

ENGL 6120 - Special Topics in Film

ENGL 6121 - Special Topics in Film

ENGL 6122 - Special Topics in Film

ENGL 6123 - Special Topics in Film

ENGL 6124 - Special Topics in Film

ENGL 6125 - Special Topics in Film

ENGL 6126 - Special Topics in Film

ENGL 6127 - Special Topics in Film

ENGL 6128 - Special Topics in Film

ENGL 6129 - Special Topics in Film

ENGL 6840 - Independent Study

ENGL 6920 - Directed Readings

ENGL 6950 - Master's Thesis

ENGL 6960 - Master's Project

ENGL 6970 - Portfolio Exam

Entrepreneurship

ENTP 2550 - Introductory Accounting for Entrepreneurs and the Arts

ENTP 3000 - Principles of Entrepreneurship

ENTP 3120 - Legal Issues for Entrepreneurs

ENTP 3200 - Essentials in Entrepreneurship

ENTP 3210 - Leadership in New Ventures

ENTP 3220 - Entrepreneurial Marketing

ENTP 3220 - Entrepreneurial Marketing

ENTP 3230 - Small Business Accounting and Finance

ENTP 3230 - Small Business Accounting and Finance

ENTP 3240 - New Concept Development

ENTP 3240 - New Concept Development

ENTP 3250 - International Social Entrepreneurship

ENTP 3250 - International Social Entrepreneurship

ENTP 3299 - Business Plan and Model Development

ENTP 3299 - Business Plan and Model Development

ENTP 3500 - Entrepreneurship Law and Ethics

ENTP 3780 - Preparing A Business Plan

ENTP 4028 - Leadership and Entrepreneurship in Ireland

ENTP 4720 - Internet Marketing

ENTP 4730 - New Product Development

ENTP 4840 - Entrepreneurship Independent Study

ENTP 4950 - Special Topics

ENTP 5939 - Internship/Cooperative Education.

ENTP 6020 - Business Model Development & Planning

ENTP 6021 - Corporate Entrepreneurship

ENTP 6028 - Leadership and Entrepreneurship In Ireland

ENTP 6620 - New Venture Operations and Project Management

ENTP 6642 - Exploring Social Entrepreneurship

ENTP 6644 - Social Entrepreneurship in the Developing World

ENTP 6800 - Special Topics in Entrepreneurship

ENTP 6801 - Building Biotechnology

ENTP 6802 - Regulatory Environment of Life Science Innovation

ENTP 6807 - Small Business Marketing and Personal Branding

ENTP 6808 - Practicum in Sustainable Business Research

ENTP 6822 - Legal and Ethical Issues of Entrepreneurship

ENTP 6824 - Entrepreneurial Financial Management

ENTP 6826 - International Entrepreneurship

ENTP 6827 - Global Action Projects for Int'l Entrepreneurship

ENTP 6834 - Entrepreneurial Marketing

ENTP 6838 - Real Estate for the Entrepreneur

ENTP 6840 - Independent Study: ENTP

ENTP 6842 - New Concept Development

ENTP 6846 - Marketing a New Business

ENTP 6848 - Leadership in New Ventures

ENTP 6854 - Design & Manage Entrepreneurial Organizations

ENTP 6862 - Strategic Web Development

Environmental Sciences

ENVS 1042 - Introduction to Environmental Sciences

ENVS 1342 - Environment, Society and Sustainability

ENVS 2939 - Internship

ENVS 3082 - Energy and the Environment

ENVS 3500 - Topics in Environmental Sciences

ENVS 4210 - Mining and the Environment

ENVS 4500 - Topics In Environmental Sciences

ENVS 4720 - Climate Change: Causes, Impacts and Solutions

ENVS 4840 - Independent Study: ENVS

ENVS 4850 - Understanding and Communicating Field Methods

ENVS 4880 - Directed Research

ENVS 4900 - Colloquium

ENVS 4992 - Advanced Regional Field Study

ENVS 4995 - Travel Study

ENVS 4998 - Geography By Rail

ENVS 5010 - Landscape Geochemistry

ENVS 5020 - Earth Environments and Human Impacts

ENVS 5030 - Environmental Geology

ENVS 5280 - Environmental Hydrology

ENVS 5340 - Equity & Culture in Science Education: Local/Global

ENVS 5403 - Unsaturated Zone Hydrology

ENVS 5410 - Aquatic Chemistry

ENVS 5450 - Urban Food and Agriculture: Perspectives and Research

ENVS 5460 - Sustainable Urban Agriculture Field Study I

ENVS 5470 - Sustainable Urban Agriculture Field Study II

ENVS 5480 - Urban Vegetable CSA: Planning, Production&Distribution

ENVS 5480 - Urban Vegetable CSA: Planning, Production&Distribution

ENVS 5500 - Topics in Environmental Sciences

ENVS 5513 - Geology of the Grand Canyon

ENVS 5600 - Applied Statistics for the Natural Sciences

ENVS 5620 - Health Risk Communication

ENVS 5650 - Environmental Education

ENVS 5700 - Synthesis for Interdisciplinary Science

ENVS 5720 - Climate Change: Causes, Impacts and Solutions

ENVS 5730 - Air Quality Modeling and Analysis

ENVS 5731 - Mountain Biogeography

ENVS 5731 - Mountain Biogeography

ENVS 5840 - Independent Study: ENVS

ENVS 5850 - Understanding and Communicating Field Methods

ENVS 5880 - Directed Research

ENVS 5900 - Colloquium

ENVS 5939 - Internship

ENVS 5992 - Advanced Regional Field Study

ENVS 5995 - Travel Study

ENVS 5998 - Geography By Rail

ENVS 6000 - Environmental Sciences Seminar

ENVS 6002 - Research Topics in Environmental Sciences

ENVS 6004 - Research Methods in Environmental Science

ENVS 6004 - Research Methods in Environmental Science

ENVS 6100 - Research Topics in Environmental Management

ENVS 6100 - Research Topics in Environmental Management

ENVS 6200 - Risk Assessment

ENVS 6210 - Human Health and Environmental Pollution

ENVS 6220 - Toxicology

ENVS 6230 - Environmental Epidemiology

ENVS 6800 - Community-Based Research Practicum

ENVS 6800 - Community-Based Research Practicum

ENVS 6840 - Independent Study: ENVS

ENVS 6950 - Master's Thesis

ENVS 6960 - Master's Report

Ethnic Studies

ETST 1111 - Freshman Seminar

ETST 2000 - Introduction to Ethnic Studies

ETST 2001 - Special Topics: Ethnic Studies

ETST 2010 - Introduction to Chicana/o Studies

ETST 2024 - Race and Ethnic Relations

ETST 2036 - American Indian Cultural Images

ETST 2105 - African American Contemporary Social Issues

ETST 2115 - Genocide in the 21st Century: Darfur and Beyond

ETST 2125 - The Bi-Racial Family

ETST 2145 - The Gullah in Novel and Film

ETST 2155 - African American History

ETST 2165 - Cultural Diversity Awareness in the Workplace

ETST 2294 - Race and the Media

ETST 2400 - Issues in Chicano/a Education

ETST 2496 - American Indian Literature

ETST 2606 - The American Indian Experience

ETST 2840 - Independent Study: ETST

ETST 2939 - Internship

ETST 3001 - Urban Sociology

ETST 3002 - Ethnicity, Health and Social Justice

ETST 3010 - Conference Participation

ETST 3108 - Chicano/a and Latino/a History

ETST 3110 - Indigenous Studies

ETST 3129 - Contemporary Latin American Literature

ETST 3211 - Hip Hop Music & Culture

ETST 3216 - Federal Law and American Indians

ETST 3224 - U.S. Middle East Culture and Religion

ETST 3230 - African American Family

ETST 3254 - Race and Ethnicity in the Inner City

ETST 3272 - Global Media

ETST 3274 - Power, Poverty, Culture

ETST 3297 - Social History of Asian Americans

ETST 3300 - Shamanic Traditions

ETST 3307 - Selected Topics: Asian Americans

ETST 3350 - Colonial Latin America

ETST 3357 - Asian American Literature

ETST 3365 - Aztlan in the United States: Chicano History from 1821

ETST 3394 - Literature of Social Protest from an Ethnic Perspective

ETST 3396 - History of the American Indian

ETST 3408 - Social Psychology of Latinos/as

ETST 3567 - Asian American Women

ETST 3574 - Topics in Ethnic Studies

ETST 3616 - Selected Topics: American Indians

ETST 3697 - Contemporary Asian American Experience

ETST 3704 - Culture, Racism and Alienation

ETST 3794 - Ethnicity and Race in Contemporary American Culture

ETST 3838 - History of the Mexican American in Colorado

ETST 3840 - Independent Study: ETST

ETST 3842 - Independent Study: ETST

ETST 3939 - Internship

ETST 3995 - Travel Study

ETST 4000 - Research Methods in Ethnic Studies

ETST 4010 - Problematizing Whiteness: Educating for Racial Justice

ETST 4144 - Indigenous Political Systems

ETST 4146 - Indigenous Politics

ETST 4156 - The Arab-Israeli Peace Process

ETST 4220 - African-American Literature

ETST 4411 - Modern Mexico

ETST 4515 - The African American in Politics

ETST 4555 - International Women's Resistance

ETST 4558 - Chicano and Latino Politics

ETST 4574 - Special Topics

ETST 4616 - Selected Topics: Chicanos/as and Latinos/as

ETST 4726 - North American Indian Art

ETST 4730 - Peoples and Cultures of Sub-Saharan Africa

ETST 4768 - Chicano/Chicana Narrative and Social History

ETST 4827 - Women and the Law

ETST 4840 - Independent Study: ETST

ETST 4880 - Directed Research

ETST 4960 - Senior Seminar in Ethnic Studies

ETST 4995 - Travel Study

ETST 5880 - Directed Research

Executive Health Administratn

XHAD 6840 - Independent Study: XHAD

Film & Video Production

FILM 1060 - Camera/Multi-Media Production

FILM 2050 - Film/Video Prod/Post II

FILM 3100 - History of Film Production I

FILM 3150 - History of Film Production II

FILM 3207 - Directing Workshop

FILM 3300 - Advanced Lighting for Film and Video

FILM 4400 - Advanced Screenwriting

FILM 4600 - Topics in Film

FILM 4720 - Reel Prep

FILM 5500 - Writing for Episodic Television

FILM 5600 - Topics in Film

FILM 5840 - Independent Study: FILM

Film and Television

FITV 1000 - Introduction to Visual Culture

FITV 1035 - Introduction to Filmmaking

FITV 1040 - Lighting, Grip, and Sound Introductory Workshop

FITV 1050 - Production I Basics of Film and Television

FITV 1115 - Horror in Western Culture and Cinema

FITV 1115 - Horror in Western Culture and Cinema

FITV 1120 - Contemporary World Cinema

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 2650 - Sound for Film and TV

FITV 2670 - Cinematography

FITV 3040 - TV Studio Production

FITV 3050 - Production III: Junior Project

FITV 3055 - Documentary Production

FITV 3060 - Editing for Film and Television

FITV 3090 - Producing Episodic Television

FITV 3200 - Film History 1

FITV 3264 - Advanced Digital Effects

FITV 3300 - Film History 2

FITV 3350 - Editing Aesthetics

FITV 3400 - Feature Screenwriting

FITV 3500 - Writing for Episodic Television

FITV 3600 - Denver Film Festival

FITV 3999SA - Upper Div General Credit

FITV 4000 - Senior Thesis Production

FITV 4010 - Senior Thesis Post-Production

FITV 4020 - CAM Film Productions

FITV 4050 - Shooting Action

FITV 4600 - Special Topics

FITV 4840 - Independent Study: FILM

Finance

FNCE 1000 - Intro to Risk Mgmt Insurance Careers

FNCE 2939 - Internship

FNCE 3000 - Principles of Finance

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 3840 - Independent Study: FNCE

FNCE 3939 - Internship

FNCE 3949 - Experiential Learning with Risk Management Industry

FNCE 4129 - Practical Enterprise Risk Mgmt

FNCE 4370 - International Financial Management

FNCE 4382 - Survey of Financial and Commodity Derivatives

FNCE 4470 - Behavioral Finance

FNCE 4470 - Behavioral Finance

FNCE 4500 - Corporate Financial Decisions

FNCE 4509 - Global Risk Management

FNCE 4709 - Life and Health Insurance

FNCE 4750 - Business Intelligence and Financial Modeling

FNCE 4802 - Foundations of Commodities

FNCE 4809 - Property & Casualty Insurance

FNCE 4840 - Independent Study: FNCE

FNCE 4909 - Corporate Risk Management

FNCE 4950 - Special Topics

FNCE 5939 - Internship

FNCE 6290 - Quantitative Methods for Finance

FNCE 6300 - Macroeconomics and Financial Markets

FNCE 6310 - Financial Decisions and Policies

FNCE 6330 - Investment Management Analysis

FNCE 6340 - Business Firm Valuation

FNCE 6350 - Financial Innovations

FNCE 6360 - Management of Financial Institutions

FNCE 6365 - Banking Principles and Practices

FNCE 6370 - International Financial Management

FNCE 6372 - Business Forecasting

FNCE 6380 - Futures and Options

FNCE 6382 - Survey of Financial Derivatives

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 6470 - Behavioral Finance

FNCE 6470 - Behavioral Finance

FNCE 6480 - Financial Modeling

FNCE 6509 - Global Risk Management

FNCE 6800 - Special Topics

FNCE 6802 - Foundations of Commodities

FNCE 6809 - Principles of Risk and Insurance

FNCE 6840 - Independent Study: FNCE

FNCE 6909 - Corporate Risk Management

FNCE 6995 - Travel Study

Fine Arts

FINE 1001 - Introduction to Art

FINE 1100 - Drawing I

FINE 1111 - Freshman Seminar

FINE 1120 - Digital Photography for Non-Majors

FINE 1140 - Topics in Photography

FINE 1150 - Introduction to Darkroom Photography

FINE 1400 - Two Dimensional Design

FINE 1435 - Intro to Electronic Art and Design

FINE 1450 - Visual Culture: Ways of Seeing

FINE 1500 - Three-Dimensional Design

FINE 1810 - Digital Animation Foundations: Producing Animation

FINE 1812 - 3D Computer Graphics: Producing Animation

FINE 1820 - Digital Animation Foundations: Introduction to Digital 3D

FINE 1822 - 3D Computer Graphics: Introduction to Digital 3D

FINE 2010 - The Graphic Novel Workshop

FINE 2030 - Life Drawing

FINE 2130 - Experiments in Color/Photography for Non-Majors

FINE 2140 - Topics in Photography

FINE 2155 - Introduction to Digital Photography

FINE 2200 - Painting I

FINE 2405 - Introduction to Digital Design

FINE 2415 - Typography Studio

FINE 2428 - Introduction to Scientific Media Design

FINE 2500 - Bronze Casting

FINE 2510 - Wood and Metal Sculpture

FINE 2600 - Art History Survey I

FINE 2610 - Art History Survey II

FINE 2810 - Digital Animation Techniques: Surface Modeling

FINE 2812 - 3D Computer Graphics: 3D Surface Modeling

FINE 2820 - Digital Animation Techniques: Surface Properties

FINE 2822 - 3D Computer Graphics: 3D Surface Properties

FINE 2830 - Digital Animation Techniques: Lighting

FINE 2832 - 3D Computer Graphics: 3D Lighting and Rendering

FINE 2850 - Digital Animation Techniques: 3D Character Creation

FINE 2852 - 3D Computer Graphics: 3D Character Creation

FINE 2995 - Travel Study

FINE 3001 - Illustration I: Digital Media

FINE 3002 - Illustration II: Spatial Thinking

FINE 3030 - The Media of Drawing

FINE 3040 - Color Theory: Studio and Screen-Based Practice

FINE 3050 - Figure Painting

FINE 3110 - Imaging and Identity

FINE 3115 - Mixed Media and Photography

FINE 3120 - Visual Culture Studies

FINE 3130 - Photography, Optics and Perspectives in Italy

FINE 3135 - Historic Photographic Processes in Italy

FINE 3160 - Color and Studio Lighting

FINE 3161 - The Silver Fine Print

FINE 3162 - The Digital Fine Print

FINE 3171 - Concepts and Processes in Photography

FINE 3172 - Digital Bookmaking

FINE 3175 - Commercial Applications

FINE 3200 - Intermediate Painting and Drawing I

FINE 3210 - Intermediate Painting and Drawing II

FINE 3240 - Abstract Painting and Drawing

FINE 3250 - Sculpture: Contemporary Artists and Concepts

FINE 3260 - Portraiture

FINE 3300 - Painting, Drawing and the Printed Image

FINE 3340 - Topics in Studio Art

FINE 3342 - Topics in Studio Art

FINE 3343 - Topics in Studio Art

FINE 3350 - Topics in Multimedia

FINE 3400 - Introduction to Web Design and Digital Imaging

FINE 3405 - Introduction to Digital Video

FINE 3414 - Motion Design I

FINE 3415 - Design Studio I

FINE 3417 - Design Research

FINE 3424 - Interactive Media

FINE 3434 - 3D Motion Design

FINE 3438 - Text, Image and Electronic Art

FINE 3444 - Interactive Media II

FINE 3450 - Digital Painting

FINE 3454 - Motion Design II

FINE 3464 - Design Studio II

FINE 3474 - Narrative and Experience

FINE 3500 - Installation Art

FINE 3505 - Environmental Art

FINE 3510 - Mold Design & Casting

FINE 3515 - Public Art

FINE 3520 - Sculpture: Contemporary Artists and Concepts

FINE 3525 - Modeling for Manufacture

FINE 3530 - Electronic Art

FINE 3535 - Sculpture Rendering

FINE 3550 - Iron Casting

FINE 3630 - History of Photography

FINE 3631 - Photography: Theory and Criticism

FINE 3635 - Photography Now

FINE 3640 - Topics in Art History I: Art Before Modernism

FINE 3644 - Topics in Art History II: Modern and Contemporary

FINE 3810 - Digital Animation Studio: Set/Environment Design

FINE 3815 - Storyboarding for Cinema and Game Previsualization

FINE 3820 - Digital Animation Technique: Char. Rigging Animation I

FINE 3821 - Digital Animation Technique: VFX Rigging Animation I

FINE 3821 - Digital Animation Technique: VFX Rigging Animation I

FINE 3830 - Digital Animation Technique: Char Rigging&Animation II

FINE 3831 - Digital Animation Technique: VFX Rigging Animation II

FINE 3831 - Digital Animation Technique: VFX Rigging Animation II

FINE 3835 - Procedural Workflows for 3D Animation

FINE 3845 - Digital Animation: Short Film Preproduction, Story

FINE 3846 - Digital Animation: Short Film Preproduction: Look Dev

FINE 3850 - Digital Animation Techniques: Dynamic Simulation

FINE 3939 - Internship

FINE 3995 - Travel Study

FINE 4001 - Illustration III: Conceptual Methods

FINE 4002 - Illustration IV: Professional Practice

FINE 4003 - Illustration V: BFA Thesis

FINE 4020 - Anatomy for the Artist

FINE 4050 - Design in a Global Workplace

FINE 4100 - Painting & Drawing Theory & Practice

FINE 4140 - Topics in Photography

FINE 4195 - Advanced Photography I

FINE 4196 - Advanced Photography II

FINE 4200 - Advanced Painting and Drawing I

FINE 4210 - Advanced Painting/Drawing II

FINE 4340 - Topics in Studio Art

FINE 4350 - Topics in Digital Design

FINE 4400 - Design Studio III

FINE 4420 - Interactive Media III

FINE 4425 - Motion III

FINE 4434 - Virtual Landscapes

FINE 4446 - Visualization & Infographics

FINE 4447 - Presenting Science

FINE 4448 - BioMedical 3D Animation

FINE 4450 - Social Engagement by Design

FINE 4480 - The Practice of Design

FINE 4495 - Design Studio IV: Thesis

FINE 4500 - Electronic Performance

FINE 4505 - Sculptural Rendering

FINE 4510 - Advanced Sculpture

FINE 4520 - Performance/Installation in Fine Art

FINE 4522 - Interdisciplinary Art in Ireland

FINE 4523 - Topics in Art History I: Art Before Modernism

FINE 4524 - Topics in Art History II: Modern and Contemporary Art

FINE 4525 - Museum Studies

FINE 4600 - History of Modern Design:Industrial Revolution-Present

FINE 4610 - Pre-Columbian Art

FINE 4620 - American Art

FINE 4625 - Studio Creative Process

FINE 4630 - History of Latin American Art:1520-1820

FINE 4632 - Media History and Aesthetics

FINE 4670 - Greek and Roman Art

FINE 4680 - Art of the Middle Ages

FINE 4700 - Italian Renaissance Art

FINE 4705 - Northern Renaissance Art

FINE 4710 - Baroque and Rococo Art

FINE 4712 - Applied Digital Media

FINE 4730 - Arts of Japan

FINE 4750 - Arts of China

FINE 4770 - Art of India and Southeast Asia

FINE 4790 - Methods in Art History

FINE 4810 - Digital Animation Studio: Animation Production I

FINE 4820 - Digital Animation: Production II

FINE 4825 - Architectural Visualization

FINE 4840 - Independent Study: FINE

FINE 4950 - Studio BFA Thesis

FINE 4951 - Bachelor of Art Thesis

FINE 4980 - Gender in Contemporary Art

FINE 4990 - Contemporary Art: 1960 to Present

FINE 4995 - Travel Study

FINE 5020 - Graduate Anatomy for Artists

FINE 5190 - Graduate Photography

FINE 5200 - Graduate Painting/Drawing I

FINE 5210 - Graduate Painting/Drawing II

FINE 5340 - Topics in Studio Art

FINE 5350 - Topics in Multimedia

FINE 5446 - Visualization & Infographics

FINE 5447 - Presenting Science

FINE 5448 - BioMedical 3D Animation

FINE 5450 - Social Engagement by Design

FINE 5500 - Graduate Sculpture I

FINE 5510 - Graduate Sculpture II

FINE 5522 - Interdisciplinary Art in Ireland

FINE 5523 - Topics in Art History I: Art Before Modernism

FINE 5524 - Topics in Art History II: Modern and Contemporary

FINE 5525 - Museum Studies

FINE 5600 - History of Modern Design:Industrial Revolution-Present

FINE 5610 - Pre-Columbian Art

FINE 5620 - American Art

FINE 5625 - Studio Creative Process

FINE 5630 - History of Latin American Art:1520-1820

FINE 5632 - History of Digital Media

FINE 5644 - Topics in Art History

FINE 5670 - Greek and Roman Art

FINE 5680 - Art of the Middle Ages

FINE 5700 - Italian Renaissance Art

FINE 5705 - Northern 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 5790 - Methods in Art History

FINE 5800 - Art Seminar

FINE 5825 - 3D Architectural Visualization

FINE 5840 - Independent Study: FINE

FINE 5939 - Internship

FINE 5980 - Gender in Contemporary Art

FINE 5990 - Contemporary Art:1960-Present

FINE 5995 - Travel Study

Foundations

FNDS 5000 - Teaching as a Profession

FNDS 5660 - History of Schooling in the United States

FNDS 5810 - Special Topics

FNDS 5840 - Independent Study: FNDS

FNDS 5920 - Readings in Foundations of Education

FNDS 6350 - Seminar: Foundations of Education

FNDS 6600 - Special Topics: Laboratory in Educational Leadership and Innovation

FNDS 6920 - Readings in Foundations of Education

FNDS 6950 - Master's Thesis

FNDS 7370 - Dissertation Seminar

FNDS 7420 - History and Philosophy of Education: Twentieth Century America

FNDS 7500 - Contemporary Philosophies of Education

FNDS 7600 - Special Topics: Laboratory in Educational Leadership and Innovation

FNDS 7840 - Independent Study: FNDS

FNDS 7930 - Teaching Internship in Foundations of Education

FNDS 8990 - Doctor of Philosophy Dissertation

FNDS 8991 - Doctor of Education Dissertation

French

FREN 1000 - Introduction to Cultures of the French- Speaking World

FREN 1001 - French Language I

FREN 1002 - French Language II

FREN 1010 - Beginning French I

FREN 1020 - Beginning French II

FREN 1111 - Freshman Seminar

FREN 2003 - French Language III

FREN 2004 - French Language 4: Introduction to Advanced Studies

FREN 2110 - Intermediate French I: Grammar Review, Reading and Composition

FREN 2120 - Intermediate French II: Grammar Review and Conversation

FREN 2939 - Internship

FREN 3010 - French Phonetics and Pronunciation

FREN 3020 - Oral Practice

FREN 3050 - Advanced Grammar and Composition

FREN 3060 - Advanced French Language Skills

FREN 3112 - Survey of French Literature I

FREN 3120 - French Cultural Identities: Myths and Realities

FREN 3122 - Survey of French Literature II

FREN 3130 - Current Topics of the French-Speaking World

FREN 3140 - Contemporary Francophone Cultures

FREN 3200 - The Francophone World in the Post-Colonial Era

FREN 3840 - Independent Study: FREN

FREN 3939 - Internship

FREN 3970 - Special Topics

FREN 3995 - Travel Study

FREN 4010 - Advanced Composition: Stylistics

FREN 4050 - Advanced French for Business

FREN 4082 - Introduction to Translation

FREN 4200 - French Civilization Through the Nineteenth Century

FREN 4210 - French Civilization - Twentieth and Twenty-First Centuries

FREN 4310 - Seventeenth Century Literature

FREN 4360 - Eighteenth Century Novel, Theater and Poetry

FREN 4430 - Nineteenth Century French Novel

FREN 4480 - Twentieth Century French Novel

FREN 4490 - Twentieth Century French Theater

FREN 4510 - French Women Writers

FREN 4520 - Voices of Haiti and the Caribbean

FREN 4600 - History of the French Language

FREN 4840 - Independent Study: FREN

FREN 4841 - Independent Study: FREN

FREN 4880 - Directed Research

FREN 4970 - Special Topics

FREN 4995 - Travel Study

FREN 5082 - Introduction to Translation

FREN 5200 - French Civilization Through the Nineteenth Century

FREN 5210 - French Civilization - Twentieth and Twenty-First Centuries

FREN 5430 - Nineteenth Century French Novel

FREN 5480 - Twentieth Century French Novel

FREN 5510 - French Women Writers

FREN 5520 - Voices of Haiti and the Caribbean

FREN 5600 - History of the French Language

FREN 5840 - Independent Study: FREN

FREN 5880 - Directed Research

FREN 5995 - Travel Study

Geography

GEOG 1102 - World Regions Global Context

GEOG 1111 - Freshman Seminar

GEOG 1202 - Introduction to Physical Geography

GEOG 1302 - Introduction to Human Geography

GEOG 1332 - Topics in Science

GEOG 1602 - Urban Studies and Planning

GEOG 2080 - Introduction to Mapping and Map Analysis

GEOG 2202 - Hazards to Disasters: Perception and Management

GEOG 2939 - Internship

GEOG 3100 - Geography of Colorado

GEOG 3110 - Geography of North America

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

GEOG 3232 - Weather and Climate

GEOG 3240 - Colorado Climates

GEOG 3301 - Population and Resources in the World Environment

GEOG 3301 - Population and Resources in the World Environment

GEOG 3302 - Water Resources

GEOG 3401 - Geography of Food and Agriculture

GEOG 3411 - Globalization and Regional Development

GEOG 3430 - Geography of Tourism

GEOG 3440 - Ecotourism

GEOG 3501 - Geography of Health

GEOG 3770 - Geography and Film

GEOG 3840 - Independent Study: GEOG

GEOG 3939 - Internship

GEOG 3990 - Special Topics

GEOG 4000 - Planning Methods

GEOG 4010 - Landscape Geochemistry

GEOG 4020 - Earth Environments and Human Impacts

GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing

GEOG 4070 - Remote Sensing II: Advanced Remote Sensing

GEOG 4080 - Introduction to GIS

GEOG 4081 - Cartography and Computer Mapping

GEOG 4085 - GIS Applications for the Urban Environment

GEOG 4090 - Environmental Modeling with Geographic Information Systems

GEOG 4091 - Open Source Software for Geospatial Applications

GEOG 4092 - GIS Programming and Automation

GEOG 4092 - GIS Programming and Automation

GEOG 4095 - Deploying GIS Functionality on the Web

GEOG 4150 - Place, Landscape, and Meaning

GEOG 4220 - Environmental Impact Assessment

GEOG 4230 - Hazard Mitigation and Vulnerability Assessment

GEOG 4235 - GIS Applications in the Health Sciences

GEOG 4240 - Applied Geomorphology

GEOG 4251 - Fluvial Geomorphology

GEOG 4251 - Fluvial Geomorphology

GEOG 4260 - Energy and Natural Resource Planning

GEOG 4265 - Sustainability in Resources Management

GEOG 4270 - Glacial Geomorphology

GEOG 4280 - Environmental Hydrology

GEOG 4335 - Contemporary Environmental Issues

GEOG 4350 - Environment and Society in the American Past

GEOG 4400 - Regional Economic Systems

GEOG 4420 - The Politics of Nature

GEOG 4440 - Science, Policy and the Environment

GEOG 4450 - Urban Food and Agriculture: Perspectives and Research

GEOG 4460 - Sustainable Urban Agriculture Field Study I

GEOG 4470 - Sustainable Urban Agriculture Field Study II

GEOG 4480 - Urban Vegetable CSA: Planning, Production&Distribution

GEOG 4480 - Urban Vegetable CSA: Planning, Production&Distribution

GEOG 4630 - Transportation and Land Use

GEOG 4640 - Urban Geography: Denver and the U.S.

GEOG 4670 - Transportation Planning and Policy

GEOG 4680 - Urban Sustainability: Perspectives and Practice

GEOG 4700 - Synthesis for Interdisciplinary Science

GEOG 4710 - Disasters, Climate Change, and Health

GEOG 4720 - Climate Change: Causes, Impacts and Solutions

GEOG 4731 - Mountain Biogeography

GEOG 4770 - Applied Statistics for the Natural Sciences

GEOG 4840 - Independent Study: GEOG

GEOG 4850 - Understanding And Communicating Field Methods

GEOG 4880 - Directed Research

GEOG 4900 - Colloquium

GEOG 4940 - Senior Seminar

GEOG 4950 - Honors Thesis

GEOG 4990 - Special Topics

GEOG 4992 - Advanced Regional Field Study

GEOG 4995 - Travel Study

GEOG 4998 - Geography By Rail

GEOG 5060 - Remote Sensing I: Introduction to Environmental Remote Sensing

GEOG 5070 - Remote Sensing II: Advanced Remote Sensing

GEOG 5080 - Introduction to GIS

GEOG 5081 - Cartography and Computer Mapping

GEOG 5085 - GIS Applications for the Urban Environment

GEOG 5090 - Environmental Modeling with Geographic Information Systems

GEOG 5091 - Open Source Software for Geospatial Applications

GEOG 5092 - GIS Programming and Automation

GEOG 5092 - GIS Programming and Automation

GEOG 5095 - Deploying GIS Functionality on the Web

GEOG 5150 - Place, Landscape, and Meaning

GEOG 5220 - Environmental Impact Assessment

GEOG 5230 - Hazard Mitigation and Vulnerability Assessment

GEOG 5235 - GIS Applications in the Health Sciences

GEOG 5240 - Applied Geomorphology

GEOG 5251 - Fluvial Geomorphology

GEOG 5251 - Fluvial Geomorphology

GEOG 5265 - Sustainability in Resources Management

GEOG 5270 - Glacial Geomorphology

GEOG 5335 - Contemporary Environmental Issues

GEOG 5350 - Environment and Society in the American Past

GEOG 5420 - The Politics of Nature

GEOG 5440 - Science, Policy and the Environment

GEOG 5640 - Urban Geography: Denver and the U.S.

GEOG 5680 - Urban Sustainability: Perspectives and Practice

GEOG 5710 - Disasters, Climate Change, and Health

GEOG 5720 - Climate Change: Causes, Impacts and Solutions

GEOG 5840 - Independent Study

GEOG 5850 - Understanding And Communicating Field Methods

GEOG 5880 - Directed Research

GEOG 5900 - Colloquium

GEOG 5939 - Internship

GEOG 5990 - Special Topics In Geography

GEOG 5992 - Advanced Regional Field Study

GEOG 5995 - Travel Study

GEOG 5998 - Geography By Rail

GEOG 6300 - Foundations Seminar in Human-Environmental Interaction

GEOG 6700 - Integrated Methods

GEOG 6750 - Research Design

GEOG 6800 - Community-Based Research Practicum

GEOG 6840 - Independent Study: GEOG

GEOG 6950 - Master's Thesis

GEOG 8990 - Doctor's Thesis

Geology

GEOL 1022 - History of Life

GEOL 1072 - Physical Geology: Surface Processes

GEOL 1082 - Physical Geology: Internal Processes

GEOL 1111 - Freshman Seminar

GEOL 1115 - Earth Sciences Content

GEOL 1202 - Introduction to Oceanography

GEOL 1400 - Geology of the National Parks

GEOL 1840 - Independent Study: GEOL

GEOL 2939 - Internship

GEOL 3011 - Mineralogy

GEOL 3032 - Geology of Colorado

GEOL 3102 - Dinosaurs Past and Present

GEOL 3411 - Introductory Paleontology

GEOL 3421 - Sedimentation and Stratigraphy

GEOL 3840 - Independent Study: GEOL

GEOL 3939 - Internship

GEOL 4010 - Landscape Geochemistry

GEOL 4020 - Earth Environments and Human Impacts

GEOL 4030 - Environmental Geology

GEOL 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing

GEOL 4111 - Field Methods In Geology

GEOL 4240 - Applied Geomorphology

GEOL 4251 - Fluvial Geomorphology

GEOL 4251 - Fluvial Geomorphology

GEOL 4270 - Glacial Geomorphology

GEOL 4280 - Environmental Hydrology

GEOL 4402 - Unsaturated Zone Hydrology

GEOL 4513 - Geology of the Grand Canyon

GEOL 4770 - Applied Statistics for the Natural Sciences

GEOL 4780 - Engineering Geology

GEOL 4840 - Independent Study: GEOL

GEOL 4880 - Directed Research

GEOL 4995 - Travel Study

GEOL 5001 - RM-MSMSP: Earth Processes I

GEOL 5002 - RM-MSMSP: Earth Sciences II - Sedimentology and Paleontology

GEOL 5003 - RM-MSMSP: Earth Science in Context

GEOL 5004 - RM-MSMSP Research Experience for Teachers - Geology Cohort

GEOL 5030 - Environmental Geology

GEOL 5060 - Remote Sensing I: Introduction to Environmental Remote Sensing

GEOL 5111 - Field Methods in Geology

GEOL 5240 - Applied Geomorphology

GEOL 5251 - Fluvial Geomorphology

GEOL 5251 - Fluvial Geomorphology

GEOL 5270 - Glacial Geomorphology

GEOL 5770 - Applied Statistics for the Natural Sciences

GEOL 5780 - Engineering Geology

GEOL 5880 - Directed Research

GEOL 5939 - Internship

GEOL 5950 - Master's Thesis

GEOL 5995 - Travel Study

GEOL 6840 - Independent Study: GEOL

GEOL 6950 - Master's Thesis

GEOL 6960 - Master's Project

German

GRMN 1000 - Germany and the Germans

GRMN 1010 - Beginning German I

GRMN 1020 - Beginning German II

GRMN 1111 - Freshman Seminar

GRMN 1995 - Travel Study

GRMN 2110 - Intermediate German I

GRMN 2130 - Intermediate German II

GRMN 2150 - Intermediate German II: Grammar Review and Oral Practice

GRMN 2210 - Readings and Translation

GRMN 2240 - Intermediate Composition and Vocabulary Building

GRMN 2840 - Independent Study: GRMN

GRMN 2939 - Internship

GRMN 2995 - Travel Study

GRMN 3030 - Advanced Conversation: Idioms and Vocabulary Building

GRMN 3050 - Phonetics and Pronunciation of German

GRMN 3060 - Advanced German Language Skills I

GRMN 3070 - Advanced German Language Skills II

GRMN 3080 - Advanced German Language Skills III

GRMN 3090 - Advanced German Language Skills IV

GRMN 3110 - Introduction to German Literature I

GRMN 3130 - Current Topics of the German-Speaking World

GRMN 3200 - Current German Society and Culture

GRMN 3230 - German Civilization I: From Medieval Through Age of Idealism

GRMN 3240 - German Civilization II: The Modern Age

GRMN 3310 - Techniques of Translation

GRMN 3512 - Faust in Literature and Music

GRMN 3540 - German Cinema and Society

GRMN 3840 - Independent Study: GRMN

GRMN 3939 - Internship

GRMN 3995 - Travel Study

GRMN 4050 - Advanced German Phonetics and Language History

GRMN 4840 - Independent Study: GRMN

GRMN 4880 - Directed Research

GRMN 4995 - Travel Study

GRMN 5880 - Directed Research

GRMN 5995 - Travel Study

Global Energy Management

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 6210 - Energy and the Law: Property and Contracts

GEMM 6220 - Interacting With Foreign Governments And State Enterprises

GEMM 6230 - Political Risk Management for Global Energy Environmen

GEMM 6300 - Technical Aspects of Energy Science

GEMM 6400 - Leadership and Decision Making in the Global Energy Environment

GEMM 6410 - People Management in the Global Energy Environment

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 and Communications

GEMM 6500 - Energy Accounting in the Global Markets

GEMM 6600 - Introduction To Financial Management In The Energy Industry

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

GEMM 6690 - Special Topics

GEMM 6840 - Independent Study

Greek

GREK 1010 - Greek I: Biblical

GREK 1020 - Greek II: Biblical

GREK 2110 - Greek III: Classical

Health Administration

HLTH 5939 - Internship

HLTH 6010 - Health Care Systems

HLTH 6070 - International Health Policy and Management

HLTH 6071 - Introduction To Health Information Technology

HLTH 6072 - Management of Healthcare Information Technology

HLTH 6075 - International Health Travel Study

HLTH 6740 - Profiles in Health Care

HLTH 6770 - Healthcare Quality and Outcomes

HLTH 6800 - Special Topics

HLTH 6840 - Independent Study: HLTH

HLTH 6911 - Health Field Studies

Health & Behavioral Sciences

HBSC 4880 - Directed Research

HBSC 5020 - Global Health: Comparative Public Health Systems

HBSC 5021 - Community Health Assessment

HBSC 5031 - Ethnographic Research in Public Health

HBSC 5040 - Social Determinants of Health

HBSC 5060 - Evolutionary Medicine

HBSC 5080 - Global Health Practice

HBSC 5090 - Political Economy of Drugs

HBSC 5110 - Public Health Perspectives on Family Violence

HBSC 5200 - The Global HIV/AIDS Epidemic

HBSC 5620 - Health Risk Communication

HBSC 5840 - Independent Study

HBSC 5880 - Directed Research

HBSC 5939 - Internship

HBSC 5995 - Travel Study

HBSC 5999 - Topics in the Health and Behavioral Sciences

HBSC 6320 - Human Genetics: Legal, Ethical and Social Issues

HBSC 6840 - Independent Study: HBSC

HBSC 7001 - Colloquium Series in the Health and Behavioral Sciences

HBSC 7011 - Theoretical Perspectives in Health and Behavioral Science I

HBSC 7021 - Theory in Health and Behavioral Sciences

HBSC 7031 - Human Ecology and Environmental Adaptation

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

HBSC 7071 - Social and Behavioral Determinants of Health and Disease

HBSC 7111 - Applications of the Health and Behavioral Sciences

HBSC 7120 - Human Reproductive Technologies and the Law

HBSC 7121 - Dissertation Proposal and Research

HBSC 7161 - Quantitative Methods in Health&Behavioral Sciences II

HBSC 7210 - Human Health and Environmental Pollution

HBSC 7235 - GIS Applications in the Health Sciences

HBSC 7310 - Environmental Epidemiology

HBSC 7320 - Human Genetics: Legal, Ethical and Social Issues

HBSC 7340 - Risk Assessment

HBSC 7360 - Toxicology

HBSC 7400 - Topics in the Health and Behavioral Sciences

HBSC 8990 - Doctoral Dissertation

Health Humanities

HEHM 3100 - Introduction to Health Humanities

HEHM 4840 - Independent Study

HEHM 4880 - Directed Research

Historic Preservation

HIPR 6010 - Preservation Theory and Practice

HIPR 6090 - Special Topics in Historic Preservation

HIPR 6110 - Regionalisms & the Vernacular

HIPR 6170 - Preservation Design Studio

HIPR 6210 - Historic Buildings in Context

HIPR 6310 - Documentation, Analysis, Representation

HIPR 6410 - Urban Conservation: Context for Reuse

HIPR 6510 - Building Conservation

HIPR 6610 - Reading the City

HIPR 6840 - Independent Study

HIPR 6851 - Professional Project

HIPR 6930 - Internship

HIPR 6951 - Thesis

History

HIST 1016 - World History to 1500

HIST 1026 - World History Since 1500

HIST 1111 - Freshman Seminar

HIST 1211 - Western Civilization I

HIST 1212 - Western Civilization II

HIST 1361 - U.S. History to 1876

HIST 1362 - U.S. History Since 1876

HIST 1381 - Paths to Present

HIST 1400 - Controversies in History

HIST 2939 - Internship

HIST 3031 - Theory and Practice of History: An Introduction to the Major

HIST 3121 - The World at War, 1914-1945

HIST 3230 - The American Presidency

HIST 3231 - Famous U.S. Trials

HIST 3232 - The American Colonies to 1750

HIST 3235 - U.S. Labor History, 1800 to the Present

HIST 3297 - Social History of Asian Americans

HIST 3343 - Women in U.S. History

HIST 3345 - Immigration and Ethnicity in American History

HIST 3347 - African-American History, 1619-Present

HIST 3348 - The African-American Protest Tradition, 1865 - Present

HIST 3349 - Social Movements in 20th Century America

HIST 3350 - Colonial Latin America

HIST 3360 - Denver History

HIST 3364 - Native Americans and Spaniards in North America

HIST 3365 - Aztlan in the United States: Chicano History from 1821

HIST 3366 - Environmental History of North America

HIST 3396 - History of the American Indian

HIST 3451 - Introduction to African History

HIST 3460 - Modern Latin American History

HIST 3469 - Intro to East Asia: To 1800

HIST 3470 - Intro to East Asia: Since 1800

HIST 3471 - Islam and Asia

HIST 3480 - Introduction to European History

HIST 3481 - Ancient Greece

HIST 3482 - Rome: City and Empire

HIST 3483 - Gandhi's India and Modern South Asia

HIST 3484 - British Isles to 1714

HIST 3485 - British Isles Since 1714

HIST 3486 - Renaissance and Reformation

HIST 3487 - Medieval Europe

HIST 3488 - Tudor-Stuart England

HIST 3500 - African History in Novels and Films

HIST 3601 - Colorado History

HIST 3606 - Science, Technology, and Society in the Modern World

HIST 3616 - An International History of Oil and Water

HIST 3706 - Age of Revolution

HIST 3810 - Topics

HIST 3840 - Independent Study: History

HIST 3939 - Internship

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 4030 - Europe During the World Wars

HIST 4031 - Contemporary Europe

HIST 4032 - Globalization in World History Since 1945

HIST 4034 - Core Themes in European History

HIST 4035 - Crisis and Transformation: Europe's 20th Century

HIST 4046 - Victorians and Victorianism

HIST 4051 - Britain and The Empire

HIST 4055 - The Atlantic Slave Trade: Africa, Caribbean and U.S.

HIST 4062 - Modern France, 1789 to the Present

HIST 4071 - Modern Germany

HIST 4074 - Post-War Germany

HIST 4075 - Travel Stories and Origins of Cultural Anthropology

HIST 4076 - History of Modern Science

HIST 4082 - Reform and Revolution in Russia: The 1860s to 1917

HIST 4083 - Russia Since 1917

HIST 4086 - Eastern Europe

HIST 4133 - Management of Material Culture and Museum Collections

HIST 4201 - Core Themes in U.S. History

HIST 4210 - The American Revolution

HIST 4212 - Civil War and Reconstruction

HIST 4213 - The Gilded Age and Early 20th Century Challenges: U.S. History, 1865-1932

HIST 4216 - History of American Popular Culture

HIST 4217 - Consumer Culture

HIST 4219 - Depression, Affluence and Anxiety: U.S. History, 1929 to the Present

HIST 4220 - U.S. Foreign Policy Since 1912

HIST 4222 - U.S. Society and Thought to 1860

HIST 4223 - U.S. Society and Thought Since 1860

HIST 4225 - Urban America: Colonial Times to the Present

HIST 4226 - U.S. Business History

HIST 4227 - American West

HIST 4228 - Western Art and Architecture

HIST 4229 - Colorado Historic Places

HIST 4230 - Women in the West

HIST 4231 - History in Museums

HIST 4232 - Historic Preservation

HIST 4234 - Introduction to Public History

HIST 4235 - Sports and American Society

HIST 4236 - Colorado Mining and Railroads

HIST 4238 - U.S. History Through Fiction

HIST 4240 - National Parks History

HIST 4242 - Oral History

HIST 4243 - Public History Administration

HIST 4244 - Interpretation of History in Museums: Exhibits and Education

HIST 4245 - Heritage Tourism

HIST 4303 - Sex and Gender in Modern Britain

HIST 4306 - Survey of Feminist Thought

HIST 4307 - History of Sexuality

HIST 4308 - Crime, Policing, and Justice in American History

HIST 4345 - Gender, Science, and Medicine: 1600 to the Present

HIST 4346 - Medicine and Society: the Ancients to the Present

HIST 4347 - History of Biology

HIST 4348 - Mind and Malady: A History of Mental Illness

HIST 4411 - Modern Mexico

HIST 4412 - Mexico and the United States: People and Politics on the Border

HIST 4414 - Nationalism and State Building in Latin America, 1750-1850

HIST 4415 - Social Revolutions in Latin America

HIST 4416 - The Age of Imperialism

HIST 4417 - Commodities and Globalization: Dessert in World History

HIST 4418 - Trade and Premodern World History

HIST 4420 - Traditional China: China to 1600

HIST 4421 - Modern China

HIST 4422 - Lvng thr Mao's China: Life, Mat. Cult, Movies, 1949-76

HIST 4431 - Modern Japan

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 4462 - Islam in Modern History

HIST 4462 - Islam in Modern History

HIST 4471 - The Second World War

HIST 4472 - The 1950s: Korean War, the Cold War and Social Transformation

HIST 4475 - The Vietnam War

HIST 4490 - Weapons of Mass Destruction

HIST 4490 - Weapons of Mass Destruction

HIST 4491 - United States History, 1865-1919

HIST 4492 - United States History, 1919-1945

HIST 4493 - United States History, 1945-1973

HIST 4494 - United States History, 1973-Present

HIST 4501 - World History for Educators

HIST 4503 - Topics in History of Science

HIST 4504 - Animals in U.S. History

HIST 4621 - Explorers and Exploration

HIST 4622 - Oceans In History

HIST 4645 - Archival Management

HIST 4810 - Special Topics

HIST 4839 - History Seminar

HIST 4840 - Independent Study: HIST

HIST 4849 - Independent Study History Honors Research Paper

HIST 4850 - History in the Community: History Day Mentoring

HIST 4880 - Directed Research

HIST 5027 - Enlightenment and Revolution

HIST 5028 - Nations and Classes: 19th Century Europe

HIST 5029 - Age of Anxiety in Europe

HIST 5030 - Europe During the World Wars

HIST 5031 - Contemporary Europe

HIST 5032 - Globalization in World History Since 1945

HIST 5034 - Core Themes in European History

HIST 5035 - Crisis and Transformation: Europe's 20th Century

HIST 5046 - Victorians and Victorianism

HIST 5051 - Britain and The Empire

HIST 5055 - The Atlantic Slave Trade: Africa, Caribbean and U.S.

HIST 5062 - Modern France: 1789 to the Present

HIST 5071 - Modern Germany

HIST 5074 - Post-War Germany

HIST 5075 - Travel Stories and Origins of Cultural Anthropology

HIST 5076 - History of Modern Science

HIST 5082 - Reform and Revolution in Russia: The 1860s to 1917

HIST 5083 - Russia Since 1917

HIST 5086 - Eastern Europe

HIST 5133 - Management of Material Culture and Museum Collections

HIST 5201 - Core Themes in U.S. History

HIST 5210 - The American Revolution

HIST 5212 - Civil War and Reconstruction

HIST 5213 - The Gilded Age and Early 20th Century Challenges: U.S. History, 1865-1932

HIST 5216 - History of American Popular Culture

HIST 5217 - Consumer Culture

HIST 5219 - Depression, Affluence and Anxiety: U.S. History, 1929 to the Present

HIST 5220 - U.S. Foreign Policy Since 1912

HIST 5222 - U.S. Society and Thought to 1860

HIST 5223 - U.S. Society and Thought Since 1860

HIST 5225 - Urban America: Colonial Times to the Present

HIST 5226 - U.S. Business History

HIST 5227 - American West

HIST 5228 - Western Art and Architecture

HIST 5229 - Colorado Historic Places

HIST 5230 - Women in the West

HIST 5231 - History in Museums

HIST 5232 - Historic Preservation

HIST 5234 - Introduction to Public History

HIST 5235 - Sports and American Society

HIST 5236 - Colorado Mining and Railroads

HIST 5238 - U.S. History Through Fiction

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 5303 - Sex and Gender in Modern Britain

HIST 5306 - Survey of Feminist Thought

HIST 5307 - History of Sexuality

HIST 5308 - Crime, Policing, and Justice in American History

HIST 5345 - Gender, Science, and Medicine: 1600 to the Present

HIST 5346 - Medicine and Society: the Ancients to the Present

HIST 5347 - History of Biology

HIST 5348 - Mind and Malady: A History of Mental Illness

HIST 5411 - Modern Mexico

HIST 5412 - Mexico and the United States: People and Politics on the Border

HIST 5414 - Nationalism and State Building in Latin America, 1750-1850

HIST 5415 - Social Revolutions in Latin America

HIST 5417 - Commodities and Globalization: Dessert in World History

HIST 5418 - Trade and Premodern Wrld Hstry

HIST 5420 - Traditional China: China to 1600

HIST 5421 - Modern China

HIST 5422 - Lvng thr Mao's China: Life, Mat. Cult, Movies, 1949-76

HIST 5431 - Modern Japan

HIST 5451 - Southern Africa

HIST 5455 - African Struggle for Independence

HIST 5460 - The Islamic World's Golden Age

HIST 5461 - The Modern Middle East

HIST 5462 - Islam in Modern History

HIST 5462 - Islam in Modern History

HIST 5464 - Problems and Methods in Teaching History and Social Studies I

HIST 5465 - Problems and Methods in Teaching History and Social Studies II

HIST 5466 - Teaching About Ethnicity, Race, and Prejudice

HIST 5471 - The Second World War

HIST 5472 - The 1950s: Korean War, the Cold War and Social Transformation

HIST 5475 - The Vietnam War

HIST 5490 - Weapons of Mass Destruction

HIST 5490 - Weapons of Mass Destruction

HIST 5491 - United States History, 1865-1919

HIST 5492 - United States History, 1919-1945

HIST 5493 - United States History, 1945-1973

HIST 5494 - United States History, 1973-Present

HIST 5501 - World History for Educators

HIST 5502 - World History For Educators Workshops

HIST 5503 - Topics in History of Science

HIST 5504 - Animals in U.S. History

HIST 5621 - Explorers and Exploration

HIST 5622 - Oceans In History

HIST 5645 - Archival Management

HIST 5810 - Special Topics

HIST 5840 - Independent Study: History

HIST 5880 - Directed Research

HIST 5939 - Internship

HIST 5995 - Travel Study

HIST 6013 - Introduction to the Professional Study of History

HIST 6840 - Independent Study: HIST

HIST 6920 - Readings in European History

HIST 6925 - Readings in Early U.S. History

HIST 6926 - Readings in Later U.S. History, 1865-1932

HIST 6927 - Readings in Public History

HIST 6929 - Readings in Later U.S. History, 1929 to the Present

HIST 6931 - Readings: Special Subjects in History

HIST 6939 - Internship

HIST 6940 - Comprehensive Exam

HIST 6950 - Master's Thesis

HIST 6951 - Masters Project: Advanced History Curriculum Development

HIST 6952 - Master's Project: Public History

HIST 6980 - Seminar in European History

HIST 6981 - Seminar in British History

HIST 6986 - Seminar in Later U.S. History

HIST 6989 - Seminar: Special Subjects in History

HIST 6992 - Seminar: Colorado Studies

HIST 6993 - Seminar: History of Technology

Human Development and Family Relations

HDFR 1000 - Global Human Development & Learning

HDFR 1010 - Life Span Development in Ecological Settings

HDFR 2000 - Introduction to Family and Community Services

HDFR 2110 - Child Ecology

HDFR 2200 - Love, Family and Human Development

HDFR 3100 - Adolescent Ecology

HDFR 3400 - Love, Couples and Family

HDFR 3500 - Introduction to Higher Education

HDFR 4080 - Global Family Resource Management

HDFR 4200 - Adult Ecology

HDFR 4500 - Diversity, Inclusion, Social Justice in Higher Education

HDFR 5080 - Global Family Resource Management

Humanities

HUMN 1012 - The Humanistic Tradition: Modes of Expression

HUMN 4251 - Introduction to Legal Studies

HUMN 4984 - Topics: Interdisciplinary Humanities

HUMN 5000 - 19th Century Philosophy

HUMN 5013 - Philosophical Problems in the Social Sciences and the Humanities

HUMN 5020 - Elements of Social Thought

HUMN 5025 - Methods & Texts of Interdisciplinary Humanities & Social Theory

HUMN 5101 - Pragmatism: Classical American Philosophy

HUMN 5220 - Aesthetics and the Philosophy of Art

HUMN 5242 - Bioethics

HUMN 5250 - Environmental Ethics

HUMN 5251 - Introduction to Legal Studies

HUMN 5520 - The City Beautiful: Art, Architecture and Theory in Urban History

HUMN 5550 - Paris 1910: Art, Philosophy and Psychology

HUMN 5600 - Philosophy of Religion

HUMN 5650 - Reflections on Modernity

HUMN 5660 - Visual Arts: Interpretations and Contexts

HUMN 5710 - Women and Religion

HUMN 5720 - Sexuality, Gender and Their Visual Representation

HUMN 5750 - Philosophical Psychology

HUMN 5770 - Imperialism, Post-Colonial Theory & Visual Discourse

HUMN 5833 - Existentialism

HUMN 5840 - Independent Study: HUMN

HUMN 5920 - Philosophy of Media and Technology

HUMN 5924 - Directed Research and Reading in Interdisciplinary Humanities

HUMN 5933 - Philosophy of Eros

HUMN 5939 - Internship

HUMN 5950 - Master's Thesis

HUMN 5960 - Master's Project

HUMN 5984 - Topics: Interdisciplinary Humanities

Information Systems

ISMG 2050 - Introduction to Business Problem Solving

ISMG 2075 - Introduction to Microsoft Access

ISMG 2800 - Designing for the Web

ISMG 3000 - Technology In Business

ISMG 3100 - Information Technology Hardware and Software

ISMG 3200 - Programming, Data, File and Object Structures

ISMG 3300 - Social Media in Business

ISMG 3500 - Enterprise Data and Content Management

ISMG 3600 - System Strategy, Architecture and Design

ISMG 3939 - Internship

ISMG 4028 - Travel Study Topics

ISMG 4200 - Building Business Applications

ISMG 4300 - Information Security and Compliance

ISMG 4400 - Web Application Development

ISMG 4500 - Database Management and Applications

ISMG 4700 - Business Data Communications and Networking

ISMG 4750 - Business Intelligence and Financial Modeling

ISMG 4760 - Customer Relationship Management

ISMG 4780 - Accounting and Information Systems Processes and Controls

ISMG 4800 - eBusiness Systems Development

ISMG 4840 - Independent Study

ISMG 4900 - Project Management and Practice

ISMG 4950 - Special Topics

ISMG 5939 - Internship

ISMG 6020 - .Net Programming Fundamentals

ISMG 6028 - Travel Study Topics

ISMG 6040 - Business Process Management

ISMG 6060 - Analysis, Modeling and Design

ISMG 6071 - Introduction to Health Information Technology

ISMG 6072 - Fundamentals of Health Information Technology Management

ISMG 6080 - Database Management Systems

ISMG 6120 - Internet and Mobile Technologies

ISMG 6180 - Information Systems Management and Strategy

ISMG 6200 - Global Information Systems

ISMG 6220 - Business Intelligence Systems and Analytics

ISMG 6240 - Website Development Practice and Technologies

ISMG 6280 - Service Oriented Architecture

ISMG 6320 - Innovative Health Information Technologies

ISMG 6420 - Global Enterprise Systems

ISMG 6430 - Information Systems Security and Privacy

ISMG 6450 - IT Project Management

ISMG 6460 - Emerging Technologies

ISMG 6470 - Text Data Analytics and Predictive Modeling

ISMG 6480 - Data Warehouse and Administration

ISMG 6510 - Accounting and Information Systems Processes and Controls

ISMG 6800 - Special Topics

ISMG 6810 - Business Intelligence in Healthcare

ISMG 6820 - Business Intelligence and Financial Modeling

ISMG 6830 - IT Governance and Service Management

ISMG 6840 - Independent Study: ISMG

ISMG 6950 - Master's Thesis

ISMG 7001 - AI-Based Decision Making

ISMG 7002 - Computer Security

ISMG 7200 - Advances In Management Information Systems

ISMG 7210 - Topics In Analytical Research In Management Information Systems

ISMG 7211 - Topics In Behavioral and Organizational Research In Management Information Systems

ISMG 7220 - Research methods: Design and Analysis

ISMG 7551 - Parallel and Distributed Systems

ISMG 7552 - Advanced Topics in Parallel Processing

ISMG 7574 - Advanced Topics in Operating Systems

ISMG 7582 - Artificial Intelligence

ISMG 7654 - Algorithms For Communication Networks

ISMG 7765 - Computer Networks

ISMG 7799 - Topics in Network Computing

ISMG 7800 - Special Topics

ISMG 7840 - Independent Study: Pre-Dissertation Research

ISMG 8990 - Dissertation Development

Initial/Professional Teacher Ed

IPTE 4800 - Special Topics: Initial and Professional Teacher Ed

IPTE 5120 - Negotiating the Classroom Culture with Children

IPTE 5800 - Special Topics: Initial & Professional Teacher Ed

IPTE 5840 - Independent Study: IPTE

Initial Teacher Education

ITED 4700 - Instructional Teamwork Academy

ITED 4710 - Student Supervision Academy

ITED 4720 - Interpersonal Skills Academy

ITED 4730 - Personal Growth and Development Academy

ITED 4740 - Behavior Management

ITED 4750 - Instructional Strategies Academy

ITED 4760 - Instructional Technology Academy

ITED 4770 - Vocabulary and Comprehension

ITED 4780 - Assisting with Phonemic Awareness and Phonics in the Classroom

ITED 4790 - Assisting with Reading Fluency in the Classroom

ITED 4800 - Grades K-4 Mathematics

ITED 4810 - Number Theory and Rational Numbers

ITED 4820 - Algebraic Concepts and Spatial Reasoning

ITED 5022 - Learning and Classroom Management Strategies for Secondary Schools

ITED 5023 - Literacy Strategies for Secondary Schools

ITED 5025 - Reading Instruction and Assessment K-5

ITED 5800 - Special Topics in Education

ITED 5840 - Independent Study

Instructional Technology

INTE 2000 - Digital Teaching and Learning

INTE 2500 - Digital Media and Learning

INTE 4000 - Design Thinking and Educational Innovation

INTE 4300 - Media Literacy

INTE 4320 - Games and Learning

INTE 4340 - Learning with Digital Stories

INTE 4665 - Social Media and Digital Cultures

INTE 5200 - The Online Educator

INTE 5250 - Teaching Strategies for Online and Blended Learning

INTE 5300 - Media Literacy

INTE 5340 - Learning with Digital Stories

INTE 5660 - Developing Self-Paced Online Courseware

INTE 5665 - Social Media and Digital Cultures

INTE 5670 - Planning and Facilitating Live Events

INTE 5680 - Producing Media for Learning

INTE 5830 - Workshop: Learning Technologies

INTE 5840 - Independent Study: Learning Technologies

INTE 5990 - Special Topics: Learning Technologies

INTE 5998 - Professional Development Activities

INTE 6710 - Creative Designs for Instructional Materials

INTE 6720 - Research in Learning Design and Technology

INTE 6750 - E-Learning Trends & Issues

INTE 6840 - Independent Study: Learning Technologies

INTE 6930 - Internship: Learning Technologies

INTE 6999 - Leadership for Technology Innovation

INTE 7100 - Professional Learning and Technology

INTE 7110 - Mentoring, Coaching and Training

INTE 7130 - Improving Workplace Performance

INTE 7930 - Internship: Professional Learning

Interdisciplinary Arts

ARTS 1000 - Arts In Our Time

ARTS 1111 - Freshman Seminar

ARTS 1150 - Topics in Cross-Disciplinary Arts I

ARTS 1400 - The Horror Film

ARTS 2150 - Topics in Cross-Disciplinary Arts II

ARTS 3150 - Topics in Cross-Disciplinary Arts III

ARTS 3400 - World Cinema

ARTS 4150 - Topics in Cross-Disciplinary Arts IV

ARTS 4939 - Internship

ARTS 5000 - Topics

ARTS 5150 - Topics In Cross-Disciplinary Arts

Interdisciplinary Major Course

ISMA 2840 - Independent Study

ISMA 3100 - Learning Across Disciplines

ISMA 3840 - Independent Study

ISMA 3939 - Internship

ISMA 4840 - Independent Study

ISMA 4880 - Directed Research

ISMA 4900 - Interdisciplinary Studies Capstone

Interdisciplinary Studies

IDST 4000 - Special Topics

IDST 5000 - Special Topics

International Business

INTB 2939 - Internshp

INTB 3000 - Global Perspectives

INTB 3901 - The Construction of the European Union

INTB 3902 - Intercultural Management: European Values and Behavior

INTB 3903 - International Business Law

INTB 3904 - International Negotiation

INTB 3939 - Internship

INTB 4028 - Travel Study Topics

INTB 4200 - International Marketing

INTB 4370 - International Financial Management

INTB 4400 - Environments of International Business

INTB 4410 - Operations of International Business

INTB 4950 - Special Topics in International Business

INTB 5800 - Special Topics in International Business

INTB 5939 - Internship

INTB 6000 - Introduction to International Business

INTB 6020 - Cross-Cultural Management

INTB 6022 - International Business Negotiations

INTB 6024 - International Trade Finance and Management

INTB 6026 - International Marketing

INTB 6028 - Travel Study Topics

INTB 6030 - 11-Month MBA International Business Study Abroad

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 6200 - International Business Policy

INTB 6370 - International Accounting

INTB 6372 - International Financial Management

INTB 6411 - International Corporate Governance

INTB 6460 - Emerging Market Finance

INTB 6500 - International Business Consulting

INTB 6500 - International Business Consulting

INTB 6750 - Research Methods in International Business

INTB 6800 - Special Topics in International Business

INTB 6840 - Independent Study

INTB 6870 - Global Climate Change

INTB 6950 - Master's Thesis

International Studies

INTS 3000 - Foundations of International Studies

INTS 3939 - Internship

INTS 4700 - Special Topics

INTS 4840 - Independent Study

INTS 4880 - Directed Research

INTS 4990 - International Studies Capstone

INTS 4995 - Travel Study

INTS 5880 - Directed Research

INTS 5995 - Travel Study

inWorks Innovation Initiative

IWKS 2100 - Human-Centered Design, Innovation and Prototyping

IWKS 2200 - Technology and Society

IWKS 2300 - Digital Creation of Virtual Artifacts

IWKS 3100 - Introduction to 3D Design

IWKS 3200 - Data Science for Human-Centered Design

IWKS 3300 - NAND to Tetris

IWKS 3400 - Game Design and Development I

IWKS 3600 - Introduction to Development and Global Health

IWKS 4120 - Physical Computing and Autonomous Artifacts

IWKS 4400 - Game Design and Development II

IWKS 4520 - Design for Healthful Human Longevity

IWKS 4600 - ICTD and Global Health

IWKS 4620 - Design for Extreme Affordability

IWKS 4680 - Case Studies in Design

IWKS 4700 - Designing Digital Pedagogy

IWKS 4800 - StartUp: So You Want to be an Entrepreneur?

IWKS 4900 - Undergraduate Capstone

IWKS 4930 - Special Topics

IWKS 4970 - Independent Study

IWKS 5120 - Physical Computing and Autonomous Artifacts

IWKS 5400 - Game Design and Development II

IWKS 5520 - Design for Healthful Human Longevity

IWKS 5600 - ICTD and Global Health

IWKS 5620 - Design for Extreme Affordability

IWKS 5680 - Case Studies in Design

IWKS 5700 - Designing Digital Pedagogy

IWKS 5800 - StartUp: So You Want to be an Entrepreneur?

IWKS 5930 - Special Topics

IWKS 5970 - Independent Study

Landscape Architecture

LDAR 5500 - Introductory Landscape Architecture Design Studio

LDAR 5501 - Landscape Architecture Design Studio 1

LDAR 5502 - Landscape Architecture Design Studio 2

LDAR 5503 - Landscape Architecture Design Studio 3

LDAR 5510 - Graphic Media in Landscape Architecture

LDAR 5521 - History of Landscape Architecture

LDAR 5532 - Landform Manipulation

LDAR 5540 - Introduction to GIS

LDAR 5572 - Landscape Ecology

LDAR 5573 - Advanced Landscape Ecology

LDAR 6520 - Landscape Architecture in Other Cultures

LDAR 6604 - Landscape Architecture Design Studio 4

LDAR 6605 - Landscape Architecture Design Studio 5

LDAR 6606 - Landscape Architecture Design Studio 6

LDAR 6607 - Landscape Architecture Design Studio 7

LDAR 6608 - Landscape Architecture Design Studio 8

LDAR 6620 - Landscape Architecture Theory and Criticism

LDAR 6624 - The Built Environment in Other Cultures I: Research Design

LDAR 6625 - Landscape Architecture Field Studies

LDAR 6630 - Site, Society and Environment

LDAR 6631 - Landscape Construction Materials and Methods

LDAR 6632 - Site Planning

LDAR 6641 - Computer Applications in Landscape Architecture

LDAR 6642 - Landscape Architecture Digital Design Workshop

LDAR 6670 - Plants in Design

LDAR 6671 - Plant Material Identification

LDAR 6686 - Special Topics: Landscape Architecture

LDAR 6710 - Landscape Representation

LDAR 6711 - Advanced Graphics Landscape Architectural

LDAR 6712 - Green Roofs/Living Systems

LDAR 6720 - Finding Common Ground

LDAR 6722 - Contested Terrains

LDAR 6723 - Cinema and the Landscape

LDAR 6724 - American Landscapes

LDAR 6725 - Design Communications

LDAR 6730 - International Studies Preparation

LDAR 6735 - The Landscape of Food

LDAR 6750 - Professional Practice

LDAR 6840 - Independent Study

LDAR 6910 - Teaching Assistantship

LDAR 6930 - Landscape Architecture Internship

LDAR 6949 - Research Tools & Methods

LDAR 6950 - Thesis Research

LDAR 6951 - Landscape Architecture Thesis

Lang Literacy & Culture

LALC 5010 - ELA Foundations

Latin

LATN 1010 - Elementary Latin I

LATN 1020 - Beginning Latin II

LATN 1050 - Vocabulary for Professionals

LATN 1100 - Building Vocabulary From Greek and Latin Words

LATN 2010 - Intermediate Latin I

LATN 2020 - Intermediate Latin II

LATN 2840 - Independent Study

LATN 3000 - Medical Terminology

LATN 3840 - Independent Study

LATN 4840 - Independent Study

LATN 4880 - Directed Research

LATN 5880 - Directed Research

Lit, Lang, & Cult Resp Teach

LCRT 2000 - Children's & Adolescent Literature in the 21st Century

LCRT 3720 - Introduction to Writing Development and Teaching

LCRT 4000 - Elementary Literacy Instruction and Assessment PK-2

LCRT 4001 - Elementary Literacy Instruction & Assessment 3rd-6th

LCRT 4710 - Primary Literacy for Diverse Learners: Pre K-3rd Grade

LCRT 5020 - Reading Development, Instruction and Assessment

LCRT 5028 - Developing Strategic Readers, Grades 4-12

LCRT 5029 - Developing 21st Century Literacy Curriculum, Gr 4-12

LCRT 5055 - Literacy Assessment & Informed Instruction

LCRT 5150 - Culturally Relevant & Responsive Pedagogies

LCRT 5200 - Theory and Methods of English Education

LCRT 5201 - Adolescent Literature

LCRT 5210 - Literacy Development Pre K-3rd Grade

LCRT 5220 - Literacy Routines and Assessment, Pre K-3rd Grade

LCRT 5230 - Early Literacy Instruction

LCRT 5710 - Primary Literacy for Diverse Learners, Pre K-Grade 3

LCRT 5720 - Writing Development, Instruction and Assessment

LCRT 5730 - Language and Literacy Across the Curriculum

LCRT 5770 - Effective Literacy Instruction for Diverse Learners

LCRT 5790 - Children's Literature: Grimm through Graphic Novels

LCRT 5795 - Current Children's Literature

LCRT 5810 - Oral & Written Language & Literacy

LCRT 5831 - Reading Recovery: Observation Survey

LCRT 5835 - Special Topics: Literacy and Language

LCRT 5840 - Independent Study: LCRT

LCRT 5911 - Reading Recovery Practicum: Early Intervention (Theory, Procedures and Practice)

LCRT 6840 - Independent Study: LCRT

LCRT 6910 - Seminar and Practicum in Literacy and Language, K-6

LCRT 6911 - Seminar and Practicum in Literacy and Language, 7-12+

LCRT 6913 - Reading Recovery: Practicum

LCRT 6915 - Seminar and Practicum in Literacy Professional Development

LCRT 6950 - Master's Thesis

Management

MGMT 1000 - Introduction to Business

MGMT 1111 - Business Freshman Seminar

MGMT 2939 - Internship

MGMT 3000 - Managing Individuals and Teams

MGMT 3010 - Managing People for a Competitive Advantage

MGMT 3111 - Business Transfer Student Seminar

MGMT 3830 - Business and Sustainability

MGMT 3939 - Internship

MGMT 4028 - Travel Study Topics

MGMT 4100 - Leveraging Diversity and Inclusion in Business

MGMT 4120 - Collaborative Experiential Learning

MGMT 4140 - Negotiation Skills/Property: Effective Strategies

MGMT 4230 - Sports Management

MGMT 4330 - Mastering Management

MGMT 4350 - Leading Organizational Change

MGMT 4370 - Organization Design

MGMT 4400 - Environments of International Business

MGMT 4410 - Operations of International Business

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

MGMT 4460 - Employee Benefits and Workforce Risk Management

MGMT 4481 - Human Resources Management: Career and employment coaching

MGMT 4481 - Human Resources Management: Career and employment coaching

MGMT 4482 - Human Resources Management: Connecting talent with business needs

MGMT 4482 - Human Resources Management: Connecting talent with business needs

MGMT 4500 - Business Policy and Strategic Management

MGMT 4770 - Human Resource Information Systems

MGMT 4780 - Preparing A Business Plan

MGMT 4824 - Sustainable Business/CSR Field Study

MGMT 4830 - Business and Sustainability

MGMT 4832 - Law & Negotiation in the Sports and Entertainment Industry

MGMT 4834 - Global Sports & Entertainment Management

MGMT 4840 - Independent Study

MGMT 4900 - Project Management and Practice

MGMT 4950 - Special Topics in Management

MGMT 5800 - Special Topics in Management

MGMT 5939 - Internship

MGMT 6020 - Leadership in Difficult Times

MGMT 6028 - Travel Study Topics

MGMT 6040 - Managing Global Talent

MGMT 6320 - Leading Organizational Change

MGMT 6360 - Designing Effective Organizations

MGMT 6380 - Managing People for Competitive Advantage

MGMT 6610 - Business Strategy Lab

MGMT 6610 - Business Strategy Lab

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 6760 - Employee Benefits and Workforce Risk Management

MGMT 6780 - Small Business Management

MGMT 6781 - Human Resources Management: Career and employment coaching

MGMT 6781 - Human Resources Management: Career and employment coaching

MGMT 6782 - Human Resources Management: Connecting talent with business needs

MGMT 6782 - Human Resources Management: Connecting talent with business needs

MGMT 6800 - Special Topics in Management

MGMT 6801 - Career Strategies

MGMT 6803 - Visionary Leadership

MGMT 6804 - Bargaining and Negotiation

MGMT 6806 - Corporate Entrepreneurship

MGMT 6808 - Leadership Development

MGMT 6820 - Management Field Studies

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 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 6840 - Independent Study

MGMT 6950 - Master's Thesis

Marketing

MKTG 1000 - Introduction to Marketing

MKTG 2939 - Internship

MKTG 3000 - Principles of Marketing

MKTG 3100 - Marketing Research

MKTG 3200 - Buyer Behavior

MKTG 3300 - Social Media in Business

MKTG 3939 - Internship

MKTG 4000 - Advertising

MKTG 4050 - Applied Marketing Management

MKTG 4051 - Honors Applied Marketing Management

MKTG 4200 - International Marketing

MKTG 4220 - Asian Business Development and Marketing

MKTG 4250 - Sports Marketing

MKTG 4580 - International Transportation

MKTG 4620 - Customer Service Strategies

MKTG 4700 - Personal Selling and Sales Management

MKTG 4720 - Internet Marketing

MKTG 4730 - New Product Development

MKTG 4760 - Customer Relationship Management

MKTG 4780 - Preparing Business Plan

MKTG 4800 - Marketing Seminar

MKTG 4840 - Independent Study

MKTG 4950 - Special Topics

MKTG 5939 - Internship

MKTG 6010 - Marketing Strategy, Evaluation and Development

MKTG 6020 - International Marketing

MKTG 6030 - Sales and Sales Force Management

MKTG 6040 - Services Marketing

MKTG 6050 - Marketing Research

MKTG 6060 - Buyer Behavior

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 - Social Media Marketing

MKTG 6094 - Marketing Issues in the Chinese Environment

MKTG 6200 - Marketing Metrics and Dashboards

MKTG 6700 - Marketing Travel Study

MKTG 6800 - Topics in Marketing

MKTG 6820 - Sports & Entertainment Marketing

MKTG 6830 - Marketing & Global Sustainability

MKTG 6840 - Independent Study

Master of Integrated Sciences

MINS 5000 - Topics

MINS 5840 - Independent Study

MINS 5939 - Internship

MINS 5950 - Master's Thesis

MINS 5960 - Master's Project

Math Content Knowledge for Ed

MCKE 3041 - Number and Operation

MCKE 3042 - Algebra, Probability and Data Analysis

MCKE 3043 - Geometry and Measurement

MCKE 4880 - Directed Research

MCKE 5000 - Algebraic Patterns and Functions I

MCKE 5002 - Algebraic Patterns and Functions II

MCKE 5004 - Statistics and Probability

MCKE 5005 - Geometry

MCKE 5006 - Mathematics of Change

MCKE 5007 - Discrete Math--Counting the Possibilities

MCKE 5008 - Discovery and Use of the History of Math

MCKE 5009 - Math Modeling--Using and Applying Math

MCKE 5011 - Mathematics and Science of Musical Instruments

MCKE 5018 - Topics in Mathematics Education for Teachers

MCKE 5140 - Introduction to Modern Algebra

MCKE 5210 - Higher Geometry I

MCKE 5250 - Problem Solving Tools

MCKE 5310 - Introduction to Real Analysis I

MCKE 5408 - Applied Graph Theory

MCKE 5409 - Applied Combinatorics

MCKE 5880 - Directed Research

Math Education

MTED 4002 - Elementary Mathematics Teaching I

MTED 4003 - Elementary Mathematics Teaching II

MTED 4300 - Curriculum and Methods for Teaching Mathematics

MTED 4301 - Assessment and Equity in Mathematics Instruction

MTED 5002 - Elementary Mathematics Teaching I

MTED 5003 - Elementary Mathematics Teaching II

MTED 5300 - Curriculum and Methods for Teaching Mathematics

MTED 5301 - Assessment and Equity in Mathematics Instruction

MTED 5400 - Mathematics for Elementary Teachers

MTED 5619 - Expanding Conceptions of Number: Quantity and Operation

MTED 5620 - Developing Fractional & Proportional Reasoning

MTED 5621 - A World of (Different) Numbers: Quantity and Operation

MTED 5622 - Expanding Conceptions of Algebra

MTED 5623 - Geometrical Ways Of Reasoning

MTED 7030 - Theories Of Mathematics Learning

MTED 7040 - Mathematics Teaching - Theory and Practice

MTED 7050 - Critique Of Mathematics Education Research

MTED 7060 - Developmental Pathways In Students' Mathematical Thinking

Mathematics

MATH 1009 - Computer-Based Algebraic Problem Solving

MATH 1010 - Mathematics for the Liberal Arts

MATH 1070 - College Algebra for Business

MATH 1080 - Calculus for Social Sciences and Business

MATH 1110 - College Algebra

MATH 1111 - Freshman Seminar

MATH 1120 - College Trigonometry

MATH 1130 - Precalculus Mathematics

MATH 1401 - Calculus I

MATH 1840 - Independent Study.

MATH 2411 - Calculus II

MATH 2421 - Calculus III

MATH 2511 - Discrete Structures

MATH 2810 - Topics

MATH 2830 - Introductory Statistics

MATH 2939 - Internship

MATH 3000 - Introduction to Abstract Mathematics

MATH 3040 - Mathematics for Elementary Teachers

MATH 3191 - Applied Linear Algebra

MATH 3195 - Linear Algebra and Differential Equations

MATH 3200 - Elementary Differential Equations

MATH 3210 - Higher Geometry I

MATH 3250 - Problem Solving Tools

MATH 3301 - Introduction to Optimization in Operations Research

MATH 3302 - Simulation in Operations Research

MATH 3440 - Introduction to Symbolic Logic

MATH 3511 - Mathematics of Chemistry

MATH 3800 - Probability and Statistics for Engineers

MATH 3939 - Internship

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 4027 - Topics in Mathematics

MATH 4110 - Theory of Numbers

MATH 4140 - Introduction to Modern Algebra

MATH 4201 - Topology

MATH 4220 - Higher Geometry II

MATH 4310 - Introduction to Real Analysis I

MATH 4320 - Introduction to Real Analysis II

MATH 4387 - Applied Regression Analysis

MATH 4390 - Game Theory

MATH 4394 - Experimental Designs

MATH 4408 - Applied Graph Theory

MATH 4409 - Applied Combinatorics

MATH 4450 - Complex Variables

MATH 4650 - Numerical Analysis I

MATH 4660 - Numerical Analysis II

MATH 4733 - Partial Differential Equations

MATH 4779 - Math Clinic

MATH 4791 - Continuous Modeling

MATH 4792 - Probabilistic Modeling

MATH 4793 - Discrete Math Modeling

MATH 4794 - Optimization Modeling

MATH 4810 - Probability

MATH 4820 - Introduction to Mathematical Statistics

MATH 4830 - Applied Statistics

MATH 4840 - Independent Study

MATH 4880 - Directed Research

MATH 5010 - History of Mathematics

MATH 5012 - An Advanced Perspective on Number and Operation

MATH 5013 - An Inquiry-based Approach to Geometry

MATH 5014 - Statistical Knowledge for Teaching

MATH 5015 - Capstone Course for Secondary Teachers

MATH 5016 - RM-MSMSP Research Experience for Teachers - Math Cohort

MATH 5017 - Topics in Mathematics for Teachers

MATH 5027 - Topics in Applied Mathematics

MATH 5070 - Applied Analysis

MATH 5110 - Theory of Numbers

MATH 5135 - Functions of a Complex Variable

MATH 5198 - Mathematics for Bioscientists

MATH 5310 - Probability

MATH 5320 - Introduction to Mathematical Statistics

MATH 5350 - Mathematical Theory of Interest

MATH 5351 - Actuarial Models

MATH 5387 - Applied Regression Analysis

MATH 5390 - Game Theory

MATH 5394 - Experimental Designs

MATH 5410 - Modern Cryptology

MATH 5432 - Computational Graph Theory

MATH 5446 - Theory of Automata

MATH 5490 - Network Flows

MATH 5576 - Mathematical Foundations of Artificial Intelligence I

MATH 5593 - Linear Programming

MATH 5610 - Computational Biology

MATH 5660 - Numerical Analysis I

MATH 5661 - Numerical Analysis II

MATH 5674 - Parallel Computing and Architectures

MATH 5718 - Applied Linear Algebra

MATH 5733 - Partial Differential Equations

MATH 5779 - Math Clinic

MATH 5791 - Continuous Modeling

MATH 5792 - Probabilistic Modeling

MATH 5793 - Discrete Math Modeling

MATH 5794 - Optimization Modeling

MATH 5830 - Applied Statistics

MATH 5840 - Independent Study

MATH 5880 - Directed Research

MATH 5939 - Internship

MATH 5950 - Master's Thesis

MATH 5960 - Master's Project

MATH 6023 - Topics in Discrete Math

MATH 6131 - Real Analysis

MATH 6330 - Workshop in Statistical Consulting

MATH 6360 - Exploratory Data Analysis

MATH 6376 - Statistical Computing

MATH 6380 - Stochastic Processes

MATH 6384 - Analysis of Dependent Data

MATH 6388 - Advanced Statistical Methods for Research

MATH 6393 - Introduction to Bayesian Statistics

MATH 6395 - Multivariate Methods

MATH 6398 - Calculus of Variations and Optimal Control

MATH 6404 - Applied Graph Theory

MATH 6595 - Computational Methods in Nonlinear Programming

MATH 6653 - Introduction to Finite Element Methods

MATH 6735 - Continuum Mechanics

MATH 6840 - Independent Study

MATH 7101 - Topology

MATH 7132 - Functional Analysis

MATH 7376 - Statistical Computing

MATH 7381 - Mathematical Statistics I

MATH 7382 - Mathematical Statistics II

MATH 7384 - Mathematical Probability

MATH 7385 - Stochastic Differential Equations

MATH 7397 - Nonparametric Statistics

MATH 7405 - Advanced Graph Theory

MATH 7409 - Applied Combinatorics

MATH 7410 - Combinatorial Structures

MATH 7413 - Modern Algebra I

MATH 7414 - Modern Algebra II

MATH 7419 - Mathematical Coding Theory

MATH 7421 - Projective Geometry

MATH 7593 - Advanced Linear Programming

MATH 7594 - Integer Programming

MATH 7595 - Advanced Nonlinear Programming

MATH 7663 - Finite Difference Methods for Partial Differential Equations

MATH 7665 - Numerical Linear Algebra

MATH 7667 - Introduction to Approximation Theory

MATH 7821 - Topics in Projective Geometry

MATH 7822 - Topics in Linear Algebra

MATH 7823 - Topics in Discrete Math

MATH 7824 - Topics in Computational Mathematics

MATH 7825 - Topics in Optimization

MATH 7826 - Topics in Probability and Statistics

MATH 7827 - Topics in Applied Mathematics

MATH 7840 - Independent Study

MATH 7921 - Readings in Mathematics

MATH 7922 - Rdgs:Math Fndts-Cmptr Sc

MATH 7923 - Readings: Discrete Mathematics

MATH 7924 - Rdgs:Comp Mathematics

MATH 7925 - Readings: Optimization

MATH 7926 - Rdgs:Applied Prob/Stats

MATH 7927 - Rdgs:Comp/Math Biology

MATH 8660 - Mathematical Foundations of Finite Element Methods

MATH 8664 - Iterative Methods in Numerical Linear Algebra

MATH 8990 - Doctoral Dissertation

Mechanical Engineering

MECH 1025 - CAD and Graphics for Mechanical Engineering

MECH 1045 - Manufacturing Processes Design

MECH 1208 - Special Topics

MECH 2023 - Statics

MECH 2024 - Introduction to Materials Science

MECH 2030 - Analysis Techniques in Mechanical Engineering

MECH 2033 - Dynamics

MECH 2034 - Properties of Engineering Materials

MECH 2208 - Special Topics: 2208-2298

MECH 3010 - Elementary Numerical Methods and Programming

MECH 3012 - Thermodynamics

MECH 3021 - Introduction to Fluid Mechanics

MECH 3022 - Thermodynamics II

MECH 3023 - System Dynamics I: Vibrations

MECH 3027 - Measurements

MECH 3028 - Laboratory of Mechanical Measurements

MECH 3030 - Electric Circuits and Systems

MECH 3031 - Fluids/Thermal Laboratory

MECH 3032 - Electric Circuits and Systems Lab

MECH 3035 - Design of Mechanical Elements

MECH 3042 - Heat Transfer

MECH 3043 - Strength of Materials

MECH 3065 - Intermediate Dynamics

MECH 3147 - Bioengineering

MECH 3208 - Special Topics

MECH 3840 - Independent Study

MECH 4020 - Biomechanics

MECH 4023 - System Dynamics II: Controls

MECH 4024 - Mechanical Behavior of Materials

MECH 4025 - Advanced Biomechanics

MECH 4035 - Senior Design I

MECH 4045 - Senior Design II

MECH 4110 - Numerical Methods for Engineers

MECH 4112 - Internal Combustion Engines

MECH 4114 - Designing with Composites

MECH 4115 - Applied Plasticity and Creep

MECH 4116 - Robotics

MECH 4120 - Methods of Engineering Analysis

MECH 4132 - Power Plant Systems Design

MECH 4135 - Mechanical Systems Design

MECH 4136 - Control Systems Design

MECH 4141 - Fluid Mechanics

MECH 4142 - Thermal Systems Design

MECH 4147 - Engineering Economy

MECH 4155 - Air Conditioning Design

MECH 4160 - Introduction to Operations Research

MECH 4163 - Rigid-Body Dynamics

MECH 4166 - Computerized Numerical Control (CNC) Manufacturing

MECH 4175 - Finite Element Analysis in Machine Design

MECH 4176 - Introduction to Sports Engineering

MECH 4177 - Energy Conversion

MECH 4178 - Solar Engineering

MECH 4179 - Introduction to Turbomachinery

MECH 4195 - Solid Modeling

MECH 4208 - Special Topics

MECH 4840 - Independent Study

MECH 5001 - Seminar: Introduction to Research

MECH 5020 - Biomechanics

MECH 5024 - Mechanical Behavior of Materials

MECH 5025 - Advanced Biomechanics

MECH 5110 - Numerical Methods for Engineers

MECH 5112 - Introduction to Internal Combustion Engines

MECH 5114 - Designing with Composites

MECH 5115 - Applied Plasticity and Creep

MECH 5120 - Methods of Engineering Analysis

MECH 5121 - Introduction to Fluid Dynamics

MECH 5122 - Macroscopic Thermodynamics

MECH 5123 - Introduction to Continuum Mechanics

MECH 5124 - Yield-Limited Behavior of Materials

MECH 5133 - Theory of Inelastic Materials

MECH 5141 - Viscous Flow

MECH 5142 - Statistical Thermodynamics

MECH 5143 - Theory of Elasticity

MECH 5144 - Plasticity and Creep

MECH 5161 - Compressible Flow

MECH 5162 - Heat Transfer I

MECH 5163 - Dynamics

MECH 5166 - Computerized Numerical Control (CNC) Manufacturing

MECH 5172 - Heat Transfer II

MECH 5175 - Finite Element Stress Analysis

MECH 5176 - Introduction to Sports Engineering

MECH 5177 - Energy Conversion

MECH 5178 - Solar Engineering

MECH 5179 - Introduction to Turbomachinery

MECH 5180 - Advanced Heat Transfer

MECH 5182 - Microscale Transport Phenomena

MECH 5208 - Special Topics

MECH 5840 - Independent Study

MECH 5939 - Internship

MECH 5939 - Internship

MECH 5950 - Master's Thesis

MECH 5960 - Master's Report

MECH 5970 - Graduate Problem Course

MECH 6184 - Advanced Fluid Mechanics

MECH 8990 - Doctoral Dissertation

Modern Languages

MLNG 1111 - Freshman Seminar

MLNG 1995 - Travel Study Abroad

MLNG 2939 - Internship

MLNG 4690 - Methods of Teaching Modern Languages

MLNG 4691 - Methods of Teaching Modern Languages II

MLNG 4880 - Directed Research

MLNG 5690 - Methods of Teaching Modern Languages

MLNG 5691 - Methods of Teaching Modern Languages II

MLNG 5880 - Directed Research

Music

MUSC 1111 - Freshman Seminar

MUSC 2450 - Performing Arts Management and Presentation

MUSC 2540 - Audio Production I

MUSC 2560 - Audio Production II

MUSC 2700 - Introduction to Music Business

MUSC 2815 - Music Industry Topics

MUSC 3125 - Sound and Music for Video Games

MUSC 3210 - Music and Entertainment Marketing

MUSC 3220 - Artist Management

MUSC 3550 - Critical Listening for Recording Arts

MUSC 3615 - Topics In Music Business

MUSC 3690 - Concert Promotion, Tour, and Venue Management

MUSC 3700 - Music and Entertainment Business in the Digital Age

MUSC 3710 - CAM Records

MUSC 3715 - Music Business Modules

MUSC 3720 - Law and the Music Industry

MUSC 3755 - Music Publishing

MUSC 3785 - Current Issues In the Music Business

MUSC 3790 - Video Production in the Arts: Music

MUSC 3939 - Internship

MUSC 4100 - Advanced Composition

MUSC 4500 - Topics in Professional Audio

MUSC 4505 - Audio Post Production I

MUSC 4510 - Topics in Recording Arts

MUSC 4515 - Songs and Scores for Visual Media

MUSC 4530 - Live Sound Reinforcement

MUSC 4550 - Audio Production III

MUSC 4560 - Mastering & Advanced Digital Audio

MUSC 4575 - Surround Sound

MUSC 4580 - Audio Production Seminar I

MUSC 4581 - Audio Production Seminar II

MUSC 4605 - Audio Post Production II

MUSC 4740 - Music Business Analysis

MUSC 4820 - Digital Music Techniques

MUSC 4890 - Music Business Senior Seminar

Performance Music

PMUS 1001 - Music Appreciation

PMUS 1020 - Beginning Musicianship

PMUS 1021 - Piano Class For Non-Majors

PMUS 1022 - Piano Class II for Non-Majors

PMUS 1022 - Piano Class II for Non-Majors

PMUS 1023 - Piano Class I

PMUS 1024 - Piano Class II

PMUS 1025 - Piano Class III

PMUS 1026 - Piano Class IV

PMUS 1040 - Class Guitar

PMUS 1041 - Class Guitar II

PMUS 1045 - Class Guitar I for Non-Majors

PMUS 1046 - Class Guitar II for Non-Majors

PMUS 1047 - The Beatles for Fingerstyle Guitar

PMUS 1050 - Voice Class I

PMUS 1051 - Voice Class I for Non-Majors

PMUS 1060 - Voice Class II

PMUS 1061 - Voice Class II for Non-Majors

PMUS 1100 - Music Theory I

PMUS 1101 - Music Theory & Ear Training Lab

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 1400 - Group Applied Lessons

PMUS 1410 - Bembe Ensemble (Beginning Percussion)

PMUS 1420 - UCD A Cappella Voices Ensemble

PMUS 1430 - Solo Vocal Jazz Ensemble

PMUS 1440 - Acoustic Guitar Ensemble

PMUS 1460 - Beginning Instrumental Ensemble

PMUS 1470 - Performance Practice Ensemble

PMUS 1500 - General Recital

PMUS 1502 - Applied Bass

PMUS 1522 - Applied Bassoon

PMUS 1532 - Applied Clarinet

PMUS 1542 - Applied Bass Clarinet

PMUS 1552 - Applied Flute

PMUS 1562 - Applied French Horn

PMUS 1572 - Applied Guitar

PMUS 1574 - Applied Guitar, Singer/Songwriter

PMUS 1582 - Applied Banjo

PMUS 1610 - Topics in Performance Music

PMUS 1612 - Applied Drum Kit

PMUS 1620 - Topics: Performance Music II

PMUS 1622 - Applied Oboe

PMUS 1630 - Topics: Performance Music III

PMUS 1632 - Applied World Percussion

PMUS 1642 - Applied Piano

PMUS 1644 - Applied Piano, Singer/Songwriter

PMUS 1652 - Applied Jazz Piano

PMUS 1662 - Applied Saxophone

PMUS 1672 - Applied Synthesizer

PMUS 1682 - Applied Trombone

PMUS 1692 - Applied Trumpet

PMUS 1702 - Applied Violin

PMUS 1712 - Applied Viola

PMUS 1722 - Applied Cello

PMUS 1732 - Applied Voice

PMUS 1734 - Applied Voice, Singer/Songwriter

PMUS 1742 - Applied Tuba

PMUS 1762 - Applied Euphonium

PMUS 1801 - Appl Electric Bass, Non-Juried

PMUS 1802 - Appl String Bass, Non-Juried

PMUS 1803 - Applied Guitar, Non-Juried

PMUS 1804 - Applied Percussion, Non-Juried

PMUS 1805 - Applied Drum Kit, Non-Juried

PMUS 1806 - Applied Piano, Non-Juried

PMUS 1807 - Applied Jazz Piano, Non-Juried

PMUS 1808 - Applied Voice, Non-Juried

PMUS 1809 - Appl Synthesizer, Non-Juried

PMUS 1810 - Applied Trumpet, Non-Juried

PMUS 1811 - Applied Trombone, Non-Juried

PMUS 1812 - Applied Tuba, Non-Juried

PMUS 1813 - Appl French Horn, Non-Juried

PMUS 1814 - Applied Euphonium, Non-Juried

PMUS 1815 - Applied Banjo, Non-Juried

PMUS 1816 - Applied Bassoon, Non-Juried

PMUS 1817 - Applied Clarinet, Non-Juried

PMUS 1818 - Applied Flute, Non-Juried

PMUS 1819 - Applied Saxophone, Non-Juried

PMUS 1820 - Applied Oboe, Non-Juried

PMUS 1821 - Applied Cello, Non-Juried

PMUS 1822 - Applied Viola, Non-Juried

PMUS 1823 - Applied Violin, Non-Juried

PMUS 2092 - Commercial Piano Styles I

PMUS 2093 - Commercial Piano Styles II

PMUS 2094 - Rhythm Section Techniques

PMUS 2095 - Commercial Guitar Styles and Theory - Harmony

PMUS 2096 - Commercial Guitar Styles and Theory - Melody

PMUS 2097 - Commercial Singing I

PMUS 2098 - Commercial Singing II

PMUS 2100 - Music Theory III

PMUS 2110 - Ear Training and Sight Singing III

PMUS 2200 - Jazz Theory

PMUS 2220 - Commercial Electronic Music Composition

PMUS 2310 - Introduction to Songwriting

PMUS 2400 - Performance Art and Experimental Music

PMUS 2410 - Abakua Ensemble (Intermediate Percussion)

PMUS 2420 - Electro/Acoustic Ensemble

PMUS 2430 - Pop/Rock Ensemble

PMUS 2440 - Chamber Ensemble

PMUS 2450 - Bluegrass Ensemble

PMUS 2460 - Music Theatre Ensemble

PMUS 2461 - Musical Theater Ensemble Production

PMUS 2470 - Mobile Device Ensemble

PMUS 2502 - Applied Bass

PMUS 2522 - Applied Bassoon

PMUS 2532 - Applied Clarinet

PMUS 2542 - Applied Bass Clarinet

PMUS 2552 - Applied Flute

PMUS 2562 - Applied French Horn

PMUS 2572 - Applied Guitar

PMUS 2582 - Applied Banjo

PMUS 2612 - Applied Drum Kit

PMUS 2622 - Applied Oboe

PMUS 2632 - Applied World Percussion

PMUS 2642 - Applied Piano

PMUS 2652 - Applied Jazz Piano

PMUS 2662 - Applied Saxophone

PMUS 2672 - Applied Synthesizer

PMUS 2682 - Applied Trombone

PMUS 2692 - Applied Trumpet

PMUS 2702 - Applied Violin

PMUS 2712 - Applied Viola

PMUS 2722 - Applied Cello

PMUS 2732 - Applied Voice

PMUS 2742 - Applied Tuba

PMUS 2750 - Functional Guitar Skills: Acoustic Guitar Styles

PMUS 2751 - Functional Guitar Skills: Electric Guitar Styles

PMUS 2762 - Applied Euphonium

PMUS 3060 - Ensemble Engineer

PMUS 3070 - Ensemble Manager

PMUS 3100 - US Music: Social & Political Impact

PMUS 3110 - Social and Political Implications of American Music

PMUS 3200 - Popular Music Performance Skills

PMUS 3210 - Introduction to Teaching Private Music Lessons

PMUS 3220 - Vocal Pedagogy

PMUS 3220 - Vocal Pedagogy

PMUS 3300 - Advanced Jazz Improvisation

PMUS 3310 - Intermediate Songwriting

PMUS 3320 - Popular Music Arranging

PMUS 3330 - Advanced Vocal Improvisation

PMUS 3410 - Rumba Ensemble (Advanced Percussion)

PMUS 3430 - Jazz Combo Ensemble

PMUS 3450 - Singer/Songwriter Ensemble

PMUS 3460 - Ninth Street Singers Ensemble

PMUS 3470 - Piano Trio Ensemble

PMUS 3502 - Applied Bass

PMUS 3522 - Applied Bassoon

PMUS 3532 - Applied Clarinet

PMUS 3542 - Applied Bass Clarinet

PMUS 3552 - Applied Flute

PMUS 3562 - Applied French Horn

PMUS 3572 - Applied Guitar

PMUS 3582 - Applied Banjo

PMUS 3612 - Applied Drum Kit

PMUS 3622 - Applied Oboe

PMUS 3632 - Applied World Percussion

PMUS 3642 - Applied Piano

PMUS 3652 - Applied Jazz Piano

PMUS 3662 - Applied Saxophone

PMUS 3672 - Applied Synthesizer

PMUS 3682 - Applied Trombone

PMUS 3692 - Applied Trumpet

PMUS 3702 - Applied Violin

PMUS 3712 - Applied Viola

PMUS 3722 - Applied Cello

PMUS 3732 - Applied Voice

PMUS 3742 - Applied Tuba

PMUS 3762 - Applied Euphonium

PMUS 3772 - Applied Singer/Songwriter

PMUS 3820 - Music History Modules

PMUS 3825 - Real History of Rock and Roll

PMUS 3827 - History Of Jazz

PMUS 3830 - History and Literature of Music I

PMUS 3831 - History and Literature of Music II

PMUS 3840 - Independent Study: PMUS

PMUS 4060 - Music Theory Analysis

PMUS 4200 - Senior Recital Project

PMUS 4310 - Advanced Songwriting

PMUS 4410 - Claim Jumpers Ensemble

PMUS 4430 - Guitar Ensemble

PMUS 4440 - Voz de la Clave

PMUS 4460 - Mix A Cappella Ensemble

PMUS 4461 - UCD Mix Ensemble Management

PMUS 4502 - Applied Bass

PMUS 4522 - Applied Bassoon

PMUS 4532 - Applied Clarinet

PMUS 4542 - Applied Bass Clarinet

PMUS 4552 - Applied Flute

PMUS 4562 - Applied French Horn

PMUS 4572 - Applied Guitar

PMUS 4582 - Applied Banjo

PMUS 4600 - Topics in Music Performance

PMUS 4612 - Applied Drum Kit

PMUS 4622 - Applied Oboe

PMUS 4632 - Applied World Percussion

PMUS 4642 - Applied Piano

PMUS 4652 - Applied Jazz Piano

PMUS 4662 - Applied Saxophone

PMUS 4672 - Applied Synthesizer

PMUS 4682 - Applied Trombone

PMUS 4692 - Applied Trumpet

PMUS 4702 - Applied Violin

PMUS 4712 - Applied Viola

PMUS 4722 - Applied Cello

PMUS 4732 - Applied Voice

PMUS 4742 - Applied Tuba

PMUS 4762 - Applied Euphonium

PMUS 4772 - Applied Singer/Songwriter

PMUS 4840 - Independent Study: PMUS

Philosophy

PHIL 1012 - Introduction to Philosophy: Relationship of the Individual to the World

PHIL 1020 - Introduction to Ethical Reasoning

PHIL 1111 - Freshman Seminar

PHIL 1700 - Philosophy and the Arts

PHIL 2441 - Logic, Language and Scientific Reasoning

PHIL 2510 - Philosophy of Nature

PHIL 2939 - Internship

PHIL 3002 - Ancient Greek Philosophy

PHIL 3005 - Roman and Early Medieval Philosophy

PHIL 3010 - Medieval Philosophy

PHIL 3022 - Modern Philosophy

PHIL 3032 - Twentieth Century Analytic Philosophy

PHIL 3150 - History of Ethics

PHIL 3200 - Social and Political Philosophy

PHIL 3250 - Business Ethics

PHIL 3280 - War and Morality

PHIL 3300 - Special Topics in Philosophy

PHIL 3350 - Metaphysics

PHIL 3360 - Epistemology

PHIL 3440 - Introduction to Symbolic Logic

PHIL 3500 - Ideology and Culture: Racism and Sexism

PHIL 3550 - Philosophy of Death and Dying

PHIL 3656 - Contemporary Religious Ethics: Jewish and Christian Traditions

PHIL 3666 - Asian Philosophies and Religions

PHIL 3840 - Independent Study

PHIL 3939 - Internship

PHIL 3981 - Chinese Philosophy and Culture

PHIL 4000 - 19th Century Philosophy

PHIL 4040 - Skepticism

PHIL 4101 - Pragmatism: Classical American Philosophy

PHIL 4150 - Twentieth Century Ethics

PHIL 4200 - Philosophical Problems and Contemporary Culture

PHIL 4220 - Aesthetics and the Philosophy of Art

PHIL 4230 - Postmodernism

PHIL 4242 - Bioethics

PHIL 4250 - Environmental Ethics

PHIL 4260 - Philosophy of Law

PHIL 4270 - Philosophy of History

PHIL 4300 - Philosophy of Mind

PHIL 4308 - Contemporary Feminist Thought

PHIL 4350 - Philosophy of Science

PHIL 4360 - American Legal Process

PHIL 4460 - Theories of Human Nature

PHIL 4470 - Concepts of the Soul

PHIL 4480 - Perspectives on Good and Evil

PHIL 4500 - Feminist Philosophy

PHIL 4600 - Philosophy of Religion

PHIL 4650 - Differing Concepts of God

PHIL 4700 - Seminar in a Major Philosopher

PHIL 4710 - Western Religious Thought

PHIL 4720 - Eastern Religious Thought

PHIL 4730 - Philosophy and Literature

PHIL 4735 - Rationalism

PHIL 4740 - Empiricism

PHIL 4750 - Introduction to Phenomenology

PHIL 4760 - Kant

PHIL 4770 - Hegel

PHIL 4780 - Heidegger

PHIL 4790 - Nietzsche

PHIL 4795 - Marx and Marxism

PHIL 4800 - Plato

PHIL 4810 - Aristotle

PHIL 4812 - Special Topics in Philosophy

PHIL 4820 - Hume

PHIL 4833 - Existentialism

PHIL 4840 - Independent Study: PHIL

PHIL 4880 - Directed Research

PHIL 4900 - John Dewey

PHIL 4920 - Philosophy of Media and Technology

PHIL 4933 - Philosophy of Eros

PHIL 4950 - Honors Thesis

PHIL 4980 - Special Topics in Philosophy

PHIL 5000 - 19th Century Philosophy

PHIL 5013 - Philosophical Problems in the Social Sciences and the Humanities

PHIL 5020 - Elements of Social Thought

PHIL 5040 - Skepticism

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 5308 - Contemporary Feminist Thought

PHIL 5350 - Philosophy of Science

PHIL 5360 - American Legal Process

PHIL 5470 - Concepts of the Soul

PHIL 5480 - Perspectives on Good and Evil

PHIL 5500 - Feminist Philosophy

PHIL 5550 - Paris 1910: Art, Philosophy and Psychology

PHIL 5600 - Philosophy of Religion

PHIL 5650 - Reflections on Modernity

PHIL 5655 - Differing Concepts of God

PHIL 5730 - Philosophy and Literature

PHIL 5735 - Rationalism

PHIL 5740 - Empiricism

PHIL 5750 - Introduction to Phenomenology

PHIL 5755 - Philosophical Psychology

PHIL 5770 - Hegel

PHIL 5780 - Heidegger

PHIL 5790 - Nietzsche

PHIL 5795 - Marx and Marxism

PHIL 5800 - Plato

PHIL 5810 - Aristotle

PHIL 5812 - Special Topics in Philosophy

PHIL 5820 - Hume

PHIL 5830 - Kant

PHIL 5833 - Existentialism

PHIL 5840 - Independent Study: PHIL

PHIL 5880 - Directed Research

PHIL 5900 - John Dewey

PHIL 5920 - Philosophy of Media and Technology

PHIL 5933 - Philosophy of Eros

Physics

PHYS 1000 - Introduction to Physics

PHYS 1052 - General Astronomy I

PHYS 1100 - Foundations of Physics

PHYS 1111 - Freshman Seminar

PHYS 1840 - Independent Study: PHYS

PHYS 2010 - College Physics I

PHYS 2020 - College Physics II

PHYS 2030 - College Physics Lab I

PHYS 2040 - College Physics Lab II

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 2821 - Modern Physics II

PHYS 2840 - Independent Study: PHYS

PHYS 2939 - Internship

PHYS 3040 - Modern Cosmology

PHYS 3050 - General Astronomy II

PHYS 3070 - Physical Cosmology

PHYS 3082 - Energy and the Environment

PHYS 3120 - Methods of Mathematical Physics

PHYS 3151 - Biophysics Outlook I

PHYS 3161 - Biophysics Outlook II

PHYS 3211 - Analytical Mechanics

PHYS 3251 - Biophysics of the Body

PHYS 3252 - Biophysics of the Body NM

PHYS 3411 - Thermal Physics

PHYS 3451 - Biophysics of the Cell

PHYS 3452 - Biophysics of the Cell NM

PHYS 3620 - Sound and Music

PHYS 3711 - Junior Laboratory I

PHYS 3721 - Junior Laboratory II

PHYS 3811 - Quantum Mechanics

PHYS 3840 - Independent Study: PHYS

PHYS 3939 - Internship

PHYS 4331 - Principles of Electricity and Magnetism

PHYS 4351 - Bioelectromagnetism

PHYS 4352 - Bioelectromagnetism NM

PHYS 4400 - Topics in Scientific Instrumentation and Laboratory Methods

PHYS 4401 - Special Topics

PHYS 4510 - Optics

PHYS 4550 - Astrophysics

PHYS 4610 - Computational Physics

PHYS 4620 - Computational Physics II

PHYS 4650 - Solid State Physics

PHYS 4711 - Senior Laboratory I

PHYS 4721 - Senior Laboratory II

PHYS 4810 - Atomic and Molecular Structure

PHYS 4820 - Subatomic Physics

PHYS 4840 - Independent Study: PHYS

PHYS 4850 - Physics for Design and Innovation I

PHYS 4852 - Physics for Design and Innovation II

PHYS 4880 - Directed Research

PHYS 4920 - Advanced Undergraduate Seminar

PHYS 4939 - Internship

PHYS 4980 - Advanced Physics Topics

PHYS 5101 - XP Forces and Motion

PHYS 5102 - XP Electromagnetism and Energy

PHYS 5103 - XP Light, Color and Optics

PHYS 5104 - RM-MSMSP Aviation Fundamentals

PHYS 5105 - RM-MSMSP Research Experience for Teachers - Physics Cohort

PHYS 5351 - Bioelectromagnetism

PHYS 5352 - Bioelectromagnetism NM

PHYS 5400 - Topics in Scientific Instrumentation and Laboratory Methods

PHYS 5401 - Special Topics

PHYS 5840 - Independent Study: PHYS

PHYS 5850 - Physics for Design and Innovation I

PHYS 5852 - Physics for Design and Innovation II

PHYS 5880 - Directed Research

PHYS 5939 - Internship

PHYS 5950 - Master's Thesis

PHYS 5960 - Master's Project

PHYS 5980 - Advanced Physics Topics

PHYS 6840 - Independent Study: PHYS

Political Science

PSCI 1001 - Introduction to Political Science: The Quest for Freedom and Justice

PSCI 1101 - American Political System

PSCI 1111 - Freshman Seminar

PSCI 2001 - Topics in Political Science

PSCI 2006 - Global Political Issues

PSCI 2840 - Independent Study

PSCI 2939 - Internship

PSCI 3000 - Topics: Conference Participation

PSCI 3002 - Topics in Political Science

PSCI 3011 - Research Methods

PSCI 3022 - Introduction to Comparative Politics

PSCI 3034 - Race, Gender, Law and Public Policy

PSCI 3035 - Political Movements: Race and Gender

PSCI 3042 - Introduction to International Relations

PSCI 3050 - Islamophobia

PSCI 3064 - Power and Empowerment in the United States

PSCI 3075 - Community Organizing and Community Development

PSCI 3214 - Federal Law and American Indians

PSCI 3333 - Utopian Transformations

PSCI 3347 - Film and Politics

PSCI 3840 - Independent Study: PSCI

PSCI 3914 - The Urban Citizen

PSCI 3939 - Internship

PSCI 4002 - Topics in Political Science

PSCI 4009 - Politics of the Budgetary Process

PSCI 4011 - GIS in Political Science

PSCI 4014 - Media and Politics

PSCI 4024 - State Politics: Focus Colorado

PSCI 4025 - Local Governance and Globalization

PSCI 4034 - Political Parties and Pressure Groups

PSCI 4044 - The Presidency

PSCI 4057 - Religion and Politics

PSCI 4074 - Urban Politics

PSCI 4084 - Local Government and Administration

PSCI 4085 - Comparative Governance: Environment and Society

PSCI 4094 - Seminar: American Politics

PSCI 4105 - Comparative Politics: Europe

PSCI 4115 - Third World Politics

PSCI 4124 - Denver Politics

PSCI 4126 - Introduction to International Political Economy

PSCI 4144 - Indigenous Political Systems

PSCI 4146 - Indigenous Politics

PSCI 4155 - Political Systems of the Middle East and North Africa

PSCI 4156 - The Arab-Israeli Peace Process

PSCI 4165 - Islamic Politics and Culture

PSCI 4176 - Gandhi's Legacy: Non-Violent Resistance Today

PSCI 4185 - Corruption in the U.S. and Abroad

PSCI 4186 - East Asia in World Affairs

PSCI 4195 - Political Systems of Sub-Saharan Africa

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 4216 - International Politics: Human Rights

PSCI 4224 - Dictatorships in 21st Century

PSCI 4225 - Democracy and Democratization

PSCI 4226 - The United Nations in World Affairs

PSCI 4235 - Politics and Markets in Latin America

PSCI 4236 - American Foreign Policy

PSCI 4237 - American National Security

PSCI 4248 - Gender, Globalization and Development

PSCI 4265 - Social Justice And Globalization

PSCI 4266 - International Law

PSCI 4274 - Conflict Resolution and Public Consent Building

PSCI 4276 - Conflicts and Rights in International Law

PSCI 4280 - The Politics of War Law

PSCI 4286 - International Relations: War or Peace?

PSCI 4324 - Politics, Public Policy and Leadership

PSCI 4326 - Advanced International Political Economy: Globalization

PSCI 4330 - U.S. Health Policy

PSCI 4354 - Environmental Politics

PSCI 4365 - Global Ecological Crises

PSCI 4374 - Public Priorities for the 21st Century

PSCI 4407 - Early Political Thought

PSCI 4414 - Organizational Change Agents

PSCI 4417 - Modern Political Thought

PSCI 4427 - Law, Politics and Justice

PSCI 4437 - Coercion and the State

PSCI 4444 - Contemporary Culture and Politics in America

PSCI 4446 - Advanced Indigenous Peoples' Politics

PSCI 4457 - American Political Thought

PSCI 4477 - Constitutional Law I

PSCI 4487 - Constitutional Law II

PSCI 4494 - Judicial Politics

PSCI 4505 - Political System of Russia and Its Neighbors

PSCI 4535 - Labor and Working Class Politics

PSCI 4545 - Immigration Politics

PSCI 4554 - Chicano and Latino Politics

PSCI 4555 - International Women's Resistance

PSCI 4564 - Gender and Politics

PSCI 4605 - Politics and Governments of South Asia

PSCI 4615 - Politics and Government of China

PSCI 4644 - Ethical Responsibilities of Leaders

PSCI 4645 - Comparative Political Leadership

PSCI 4726 - Seminar on U.S. and China Relations

PSCI 4736 - The Middle East in World Affairs

PSCI 4757 - Legal Reasoning and Writing

PSCI 4807 - Political Violence

PSCI 4808 - Strategies of Peacebuilding

PSCI 4827 - Women and the Law

PSCI 4837 - Contemporary Issues in Civil Liberties

PSCI 4840 - Independent Study: PSCI

PSCI 4880 - Directed Research

PSCI 4934 - CU at the Capitol

PSCI 4995 - Travel Study

PSCI 5000 - State of the Discipline

PSCI 5005 - Political Theory After 9/11

PSCI 5007 - Beyond Political Correctness

PSCI 5008 - Graduate Topics in Political Science

PSCI 5009 - Politics of the Budgetary Process

PSCI 5011 - GIS in Political Science

PSCI 5013 - Philosophical Problems in the Social Sciences

PSCI 5014 - Seminar: American Politics

PSCI 5024 - State Politics: Focus on Colorado

PSCI 5025 - Local Governance and Globalization

PSCI 5044 - The Presidency

PSCI 5054 - The Legislative Process

PSCI 5057 - Religion and Politics

PSCI 5084 - Local Government and Administration

PSCI 5085 - Comparative Governance: Environment and Society

PSCI 5094 - Seminar: Urban Politics

PSCI 5105 - Comparative Politics: Europe

PSCI 5135 - Seminar: Political Economy of Latin America

PSCI 5145 - Indigenous Politics

PSCI 5176 - Gandhi's Legacy: Non-Violent Resistance Today

PSCI 5206 - Social Movements, Democracy and Global Politics

PSCI 5216 - Seminar: International Relations

PSCI 5217 - Human Rights in Theory and Practice

PSCI 5224 - Dictatorships in 21st Century

PSCI 5225 - Democracy and Democratization

PSCI 5236 - Seminar: American Foreign Policy

PSCI 5238 - Seminar: Comparative Foreign Policy

PSCI 5245 - Gender, Globalization and Development

PSCI 5256 - Seminar: National Question and Self-Determination

PSCI 5265 - Social Justice And Globalization

PSCI 5266 - International Law

PSCI 5274 - Conflict Resolution and Public Consent Building

PSCI 5276 - Conflicts and Rights in International Law

PSCI 5286 - International Relations: War or Peace?

PSCI 5324 - Politics, Public Policy and Leadership

PSCI 5326 - Advanced International Political Economy: Globalization

PSCI 5354 - Seminar: Environmental Politics and Policy

PSCI 5365 - Global Ecological Crises

PSCI 5374 - Public Priorities for the 21st Century

PSCI 5414 - Organizational Change Agents

PSCI 5417 - Seminar: Practical Utopias

PSCI 5446 - Advanced Indigenous Peoples' Politics

PSCI 5457 - Seminar: American Political Thought

PSCI 5468 - Research Methods in Political Science

PSCI 5477 - The U.S. Constitution: Law and Politics

PSCI 5545 - Immigration Politics

PSCI 5555 - International Women's Resistance

PSCI 5610 - Seminar: Middle East Politics

PSCI 5615 - Seminar: Chinese Development

PSCI 5644 - Ethical Responsibilities of Leaders

PSCI 5726 - Seminar on U.S. and China Relations

PSCI 5747 - Legal Reasoning and Writing

PSCI 5807 - Seminar: Conflict Behavior and the Politics of Violence

PSCI 5808 - Strategies of Peacebuilding

PSCI 5827 - Seminar: Political Psychology

PSCI 5837 - Contemporary Issues in Civil Liberties

PSCI 5840 - Independent Study: PSCI

PSCI 5880 - Directed Research

PSCI 5914 - Community Development

PSCI 5939 - Internship

PSCI 5944 - CU in the City

PSCI 5950 - Master's Thesis

PSCI 5960 - Master's Project

PSCI 5995 - Travel Study

PSCI 6840 - Independent Study: PSCI

Pre-Nursing

PRNU 2939 - Internship

PRNU 3939 - Internship

Psychology

PSYC 1000 - Introduction to Psychology I

PSYC 1005 - Introduction to Psychology II

PSYC 1111 - Freshman Seminar

PSYC 2050 - Improving Memory

PSYC 2060 - Psychology Applied to Everyday Life

PSYC 2090 - Statistics and Research Methods

PSYC 2220 - Biological Basis of Behavior

PSYC 2939 - Internship

PSYC 2990 - Topics in Psychology

PSYC 3050 - Decision Making

PSYC 3090 - Research Methods in Psychology

PSYC 3104 - Behavioral Genetics

PSYC 3144 - Human Cognition

PSYC 3145 - Industrial and Organizational Psychology

PSYC 3205 - Human Development I: Child Psychology

PSYC 3215 - Human Development II: Adolescence and Adulthood

PSYC 3222 - Principles of Learning and Behavior

PSYC 3235 - Human Sexuality

PSYC 3254 - Introduction to Animal Behavior

PSYC 3262 - Health Psychology

PSYC 3263 - Hormones and Behavior

PSYC 3265 - Drugs, Brain and Behavior

PSYC 3305 - Abnormal Psychology

PSYC 3385 - Psychology of Mindfulness

PSYC 3405 - Family Psychology

PSYC 3415 - Experimental Social Psychology

PSYC 3505 - Psychology and the Law

PSYC 3600 - Topics in Psychology

PSYC 3610 - Psychological Trauma

PSYC 3611 - Psychology of Women

PSYC 3612 - Domestic Abuse

PSYC 3615 - Positive Psychology

PSYC 3724 - Developmental Psychobiology

PSYC 3810 - Neuropsychology

PSYC 3822 - Aging, Brain and Behavior

PSYC 3832 - Neural Basis of Learning

PSYC 3939 - Internship

PSYC 4054 - Behavioral Neuroscience

PSYC 4090 - Research Design and Development

PSYC 4101 - Applied Statistics Using SAS and SPSS I

PSYC 4102 - Applied Statistics Using SAS and SPSS II

PSYC 4164 - Psychology of Perception

PSYC 4455 - Theories of Personality

PSYC 4485 - Psychology of Cultural Diversity

PSYC 4500 - Psychotherapy

PSYC 4511 - History of Psychology

PSYC 4680 - Behavioral Sciences Research Seminar

PSYC 4730 - Clinical Psychology: Ethics and Issues

PSYC 4780 - Behavioral Sciences Research: Ethics and Issues

PSYC 4803 - Principles of Psychological Testing

PSYC 4840 - Independent Study: PSYC

PSYC 4880 - Directed Research

PSYC 4939 - Internship

PSYC 4990 - Topics in Psychology

PSYC 5803 - Principles of Psychological Testing

PSYC 5840 - Independent Study: PSYC

PSYC 5880 - Directed Research

PSYC 5939 - Internship

PSYC 5990 - Topics in Psychology

PSYC 6200 - Developmental Psychopathology

PSYC 6840 - Independent Study

PSYC 6841 - Independent Study: PSYC

PSYC 6910 - Research Practicum

PSYC 6930 - Clinical Internship

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 - Assessment I: Personality

PSYC 7420 - Assessment I: Intellectual and 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 - Advanced Clinical Practicum

PSYC 8938 - Pre-Doctoral Internship

PSYC 8990 - Doctoral Dissertation

Public Administration

PUAD 1001 - Introduction to Leadership and Public Service

PUAD 3003 - Introduction to Nonprofit Organizations

PUAD 3004 - Managing Nonprofit Organizations

PUAD 4009 - Human Service Organizations

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 - Public Service Leadership

PUAD 5007 - Qualitative Research Methods

PUAD 5008 - Evidence-Based Decision-Making

PUAD 5010 - Rocky Mountain Program

PUAD 5030 - Denver Community Leadership Forum

PUAD 5110 - Seminar in Nonprofit Management

PUAD 5115 - Effective Grant Writing for Nonprofit and Public Sector Managers

PUAD 5120 - Nonprofits and Public Policy

PUAD 5125 - Civil Society and Nongovernmental Organizations

PUAD 5130 - Collaboration Across Sectors

PUAD 5140 - Nonprofit Financial Management

PUAD 5150 - Fundraising & Financial Resource Development

PUAD 5160 - Nonprofit Boards and Executive Leadership

PUAD 5170 - Strategic Management for Nonprofit and Public Managers

PUAD 5180 - Social Entrepreneurship

PUAD 5220 - Human Resource Management

PUAD 5250 - Intergovernmental Management

PUAD 5260 - Managing Diversity

PUAD 5271 - Managing Conflict and Change

PUAD 5280 - American Public Service Environment

PUAD 5310 - Policy Formulation & Implementation

PUAD 5320 - Public Policy Analysis

PUAD 5330 - Intermediate Statistical Analysis

PUAD 5350 - Program Evaluation

PUAD 5361 - Capstone Seminar

PUAD 5370 - Media and Public Policy

PUAD 5380 - Citizen Participation: Theory and Practice

PUAD 5410 - Administrative Law

PUAD 5420 - Law and Public Policy

PUAD 5440 - Negotiation and Conflict Resolution

PUAD 5450 - Law of All-Hazards Management

PUAD 5460 - Political Advocacy

PUAD 5501 - Contemporary Issues in Revenue and Tax Administration and Policy

PUAD 5502 - Public Financial Management and Policy

PUAD 5503 - Public Budgeting and Finance

PUAD 5540 - Organization Development

PUAD 5615 - Health Policy

PUAD 5625 - Local Government Management

PUAD 5626 - Local Government Politics and Policy

PUAD 5628 - Urban Social Problems

PUAD 5631 - Seminar in Environmental Politics and Policy

PUAD 5632 - Seminar in Environmental Management

PUAD 5633 - Seminar in Natural Resource and Environmental Health Law

PUAD 5650 - Public Policies for Homeland Security and Disasters

PUAD 5655 - Principles of Emergency Management

PUAD 5710 - Public Sector Technology

PUAD 5910 - Nature and Scope of Interpersonal Violence

PUAD 5920 - The Psychology of Interpersonal Violence

PUAD 5930 - Interpersonal Violence Law and Policy

PUAD 5940 - Interpersonal Violence Leadership, Advocacy, and Social Change

PUAD 5960 - Interpersonal Violence and Health Care

PUAD 5961 - Interpersonal Violence, Health Advocacy and Systems Change

PUAD 6600 - Special Topics: Public Administration

PUAD 6840 - Independent Study: PUAD

PUAD 6910 - Internship

PUAD 6950 - Master's Thesis

PUAD 7007 - Qualitative Research Methods

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

PUAD 8060 - Seminar On The Conduct Of Empirical Inquiry

PUAD 8070 - Quantitative Methods II

PUAD 8840 - Independent Study: PUAD

PUAD 8990 - Doctoral Dissertation

Public Health

PBHL 1001 - Race, Gender, Class, & Health

PBHL 1001 - Race, Gender, Class, & Health

PBHL 1111 - Freshman Seminar

PBHL 2001 - Introduction To Public Health

PBHL 2020 - Introduction to Environmental Health

PBHL 2052 - Global Demography and Health

PBHL 2990 - Topics in Public Health

PBHL 3001 - Introduction to Epidemiology

PBHL 3002 - Ethnicity, Health and Social Justice

PBHL 3010 - Human Sexuality and Public Health

PBHL 3021 - Fundamentals of Health Promotion

PBHL 3030 - Health Policy

PBHL 3031 - Health, Human Biology and Behavior

PBHL 3041 - Health, Culture and Society

PBHL 3050 - Decision Making

PBHL 3051 - Mental Illness and Society

PBHL 3070 - Perspectives in Global Health

PBHL 3071 - Global Topics In Sexual and Reproductive Health

PBHL 3200 - Human Migration: Nomads, Sojourners, and Settlers

PBHL 3440 - Medical Sociology

PBHL 3939 - Internship

PBHL 4020 - Global Health: Comparative Public Health Systems

PBHL 4031 - Ethnographic Research In Public Health

PBHL 4040 - Social Determinants of Health

PBHL 4060 - Evolutionary Medicine

PBHL 4070 - Health Disparities

PBHL 4080 - Global Health Practice

PBHL 4090 - Political Economy of Drugs

PBHL 4099 - Capstone Experience in Public Health

PBHL 4110 - Public Health Perspectives On Family Violence

PBHL 4200 - The Global HIV/AIDS Epidemic

PBHL 4620 - Health Risk Communication

PBHL 4840 - Independent Study

PBHL 4880 - Directed Research

PBHL 4995 - Travel Study

PBHL 4999 - Topics In Public Health

PBHL 5880 - Directed Research

Recording Arts

MSRA 5000 - Introduction to Graduate Studies

MSRA 5001 - MSRA Research Seminar

MSRA 5004 - Topics in Media Forensics

MSRA 5014 - Research Practices in Media Forensics

MSRA 5054 - Experiential Lab

MSRA 5114 - Foundations in Media Forensics

MSRA 5124 - Forensic Science and Litigation

MSRA 5134 - Computer Forensics

MSRA 5144 - MATLAB Foundations

MSRA 5214 - Forensic Audio Analysis

MSRA 5224 - Forensic Video and Image Analysis

MSRA 5244 - Mobile Phone Forensics

MSRA 5254 - MATLAB for Forensic Audio Analysis

MSRA 5264 - MATLAB for Forensic Video and Image Analysis

MSRA 5314 - Report Writing and Court Testimony

MSRA 5500 - Topics in Professional Audio

MSRA 5505 - Audio Post Production I

MSRA 5510 - Topics in Recording Arts

MSRA 5515 - Songs and Scores in Visual Media

MSRA 5530 - Live Sound Reinforcement

MSRA 5550 - Audio Production III

MSRA 5560 - Mastering & Advanced Digital Audio

MSRA 5575 - Graduate Surround Sound

MSRA 5576 - Surround Sound II

MSRA 5580 - Graduate Audio Seminar I

MSRA 5581 - Graduate Audio Seminar II

MSRA 5590 - Graduate Audio Production

MSRA 5600 - Topics in Music

MSRA 5605 - Audio Post Production II

MSRA 5820 - Digital Music Techniques

MSRA 5840 - Independent Study for MSRA

MSRA 6214 - Forensic Audio Analysis

MSRA 6224 - Forensic Video and Image Analysis

MSRA 6254 - MATLAB for Forensic Audio Analysis

MSRA 6264 - MATLAB for Forensic Video and Image Analysis

MSRA 6510 - Graduate Audio Studies Pedagogy

MSRA 6550 - Sound Design

MSRA 6950 - Thesis in Professional Audio

MSRA 6951 - Professional Audio Portfolio Thesis

MSRA 6954 - Research Thesis in Media Forensics

Religious Studies

RLST 1010 - Greek I: Biblical

RLST 1610 - Introduction to Religious Studies

RLST 2660 - World Religions

RLST 2680 - The American Indian Experience

RLST 2700 - 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

RLST 3120 - Islamic Traditions

RLST 3300 - Shamanic Traditions

RLST 3400 - Asian Philosophies and Religions

RLST 3486 - Renaissance and Reformation

RLST 3486 - Renaissance and Reformation

RLST 3500 - Religions of India

RLST 3660 - Chinese Philosophy and Culture

RLST 3720 - 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

RLST 4040 - Psychology of Religion

RLST 4060 - Philosophy of Religion

RLST 4070 - Western Religious Thought

RLST 4080 - Eastern Religious Thought

RLST 4100 - Special Topics in Religion

RLST 4160 - Mysticism

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

RLST 4420 - Goddess Traditions

RLST 4440 - Concepts of the Soul

RLST 4460 - Death and Concepts of Afterlife

RLST 4462 - Islam in Modern History

RLST 4462 - Islam in Modern History

RLST 4480 - Perspectives on Good and Evil

RLST 4500 - Religion and Politics

RLST 4710 - Women and Religion

RLST 4730 - Whores and Saints: Medieval Women

RLST 4840 - Independent Study: RLST

RLST 4880 - Directed Research

RLST 5010 - Comparative Religious Systems

RLST 5020 - Sociology of Religion

RLST 5040 - Psychology of Religion

RLST 5060 - Philosophy of Religion

RLST 5160 - Mysticism

RLST 5300 - Myth and Symbol

RLST 5360 - Freudian and Jungian Perspectives in Dream Analysis

RLST 5360 - Freudian and Jungian Perspectives in Dream Analysis

RLST 5400 - Differing Concepts of God

RLST 5420 - Goddess Traditions

RLST 5440 - Concepts of the Soul

RLST 5460 - Death and Concepts of Afterlife

RLST 5462 - Islam in Modern History

RLST 5462 - Islam in Modern History

RLST 5480 - Perspectives on Good and Evil

RLST 5500 - Religion and Politics

RLST 5710 - Women and Religion

RLST 5730 - Whores and Saints: Medieval Women

RLST 5880 - Directed Research

Research & Eval Methods

RSEM 4001 - Special Topics

RSEM 5001 - Special Topics

RSEM 5050 - Classroom Assessment

RSEM 5080 - Research In Schools

RSEM 5100 - Basic Statistics

RSEM 5110 - Introduction to Measurement

RSEM 5120 - Introduction to Research Methods

RSEM 5600 - Issues in Assessment Development

RSEM 5610 - Formative and Summative Assessment in the Classroom

RSEM 5620 - Analyzing, Using, and Reporting Assessment Results

RSEM 5800 - Workshop: Topics in Research and Evaluation Methodology

RSEM 5840 - Independent Study: RSEM

RSEM 5910 - Practicum in Research and Evaluation Methodology

RSEM 5920 - Readings in Educational Statistics

RSEM 5921 - Readings in Educational Research

RSEM 5923 - Readings in Educational Measurement

RSEM 5924 - Readings in Program Evaluation

RSEM 6100 - Methods of Qualitative Inquiry

RSEM 6200 - Single Case Research Design for Education

RSEM 7000 - Doctoral Seminar in Research Methods

RSEM 7010 - Educational Assessment And Measurement

RSEM 7050 - Methods of Survey Research

RSEM 7100 - Advanced Methods of Qualitative Inquiry

RSEM 7110 - Intermediate Statistics

RSEM 7120 - Advanced Methods in Quantitative Inquiry and Measurement

RSEM 7150 - Mixed Methods Research

RSEM 7210 - Program Evaluation

RSEM 7500 - Special Topics: Research and Evaluation Methods

Risk Management

RISK 1000 - RISK Intro to Risk Management and Insurance Careers

RISK 3809 - Introduction to Risk Management

RISK 3949 - Experiential Learning in RMI Industry

RISK 4129 - Practical Enterprise Risk Management

RISK 4409 - Employee Benefits and Workforce Risk Management

RISK 4409 - Employee Benefits and Workforce Risk Management

RISK 4509 - Global Risk Management

RISK 4809 - Property & Casualty Insurance

RISK 4909 - Corporate Risk Management

RISK 4950 - Special Topics: Cyber Risk Management & Cyber Warfare

RISK 6129 - Practical Enterprise Risk Management

RISK 6309 - Strategic Risk Management

RISK 6409 - Employee Benefits and Workforce Risk Management

RISK 6509 - Global Risk Management

RISK 6800 - Special Topics: Cyber Risk Management & Cyber Warfare

RISK 6809 - Principles of Risk Management & Insurance

RISK 6840 - Independent Study

RISK 6909 - Corporate Risk Management

Russian

RUSS 4999AE - RUSS Equivalent-Upper Div

School Library Program

SCHL 5030 - Information Literacy

SCHL 5040 - Information Storage and Utilization

SCHL 5100 - School Libraries in the Digital Age

SCHL 5160 - Managing School Libraries

SCHL 5200 - Promoting Literature in Schools

SCHL 5830 - School Library Workshop

SCHL 5913 - School Library Field Experience

School Psychology

SPSY 5600 - Behavior Analysis and Intervention

SPSY 5800 - Workshop: Topics in School Psychology

SPSY 5840 - Independent Study: SPSY

SPSY 5900 - School-Based Multicultural Interventions

SPSY 6000 - BrainSTARS: TBI-Strategies for Teams and Re-Educ

SPSY 6020 - Consultation and Leadership in TBI

SPSY 6040 - Applied Research in TBI for School Psychologists

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 6350 - School-Based Interventions: Children, Youth and Families

SPSY 6400 - School-Based Interventions: Groups, Classrooms and Systems

SPSY 6410 - Psychoeducational Assessment of Culturally and Linguistically Diverse Students

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 6911 - School Psychology Practicum

SPSY 6915 - Practicum with Culturally and Linguistically Diverse Students

SPSY 6917 - Advanced Practicum in Psychological Assessment

SPSY 6918 - Clinical Externship

SPSY 6930 - School Psychology Internship

SPSY 6935 - Practicum in Evidence-Based Interventions: TBI

Sci, Tech, Engineer & Math Ed

STME 4051 - STEM Capstone: Secondary Education

STME 5051 - STEM Capstone: Secondary Education

Science Education

SCED 4004 - Elementary Science Teaching

SCED 4050 - Introduction to Science Teaching and Learning

SCED 4400 - Theory and Pedagogy of Science Learning

SCED 4401 - Inquiry Science Pedagogy and Practices

SCED 5004 - Elementary Science Teaching

SCED 5050 - Introduction to Science Teaching and Learning

SCED 5340 - Equity & Culture in Science Education: Local/Global

SCED 5350 - Issues and Trends in Science Education

SCED 5360 - Physics Teaching and Learning

SCED 5365 - Physics Teaching as Research

SCED 5400 - Theory and Pedagogy of Science Learning

SCED 5401 - Inquiry Science Pedagogy and Practices

SCED 5416 - Math-Science Connections: Outdoor

SCED 5500 - The Nature of Science

SCED 5540 - Foundations of School Health Education

SCED 5550 - Curriculum Materials in Health Education

SCED 5560 - Health Education Teaching Practices

SCED 5650 - Environmental Education

SCED 5660 - Energy Education

SCED 5670 - Experiential Learning In The Parks

SCED 5690 - Curriculum Development in Place-Based Education

SCED 5780 - Storytelling

SCED 5800 - Curriculum Workshop for Science Teachers

SCED 5840 - Independent Study

SCED 5920 - Readings in Elementary Education

SCED 5930 - Internship in Secondary Education

SCED 5950 - Master's Thesis

SCED 6110 - Science and Math Curriculum Studies

SCED 6120 - International Perspectives on the Curriculum

SCED 6840 - Independent Study

SCED 6950 - Master's Thesis

SCED 6950 - Master's Thesis

SCED 7110 - Science Math Curriculum Study

SCED 7500 - The Nature of Science

SCED 7840 - Independent Study

Social Justice

SJUS 2000 - Democratic Participation and Social Justice

SJUS 2010 - Social Justice: Theories, Narratives, and Technologies

SJUS 3939 - Internship

SJUS 4000 - Social Justice Capstone

SJUS 4840 - Independent Study

SJUS 4880 - Directed Research

SJUS 5880 - Directed Research

Social Sciences

SSCI 4050 - Special Topics in Law Studies

SSCI 4251 - Introduction to Legal Studies

SSCI 4710 - Women and Religion

SSCI 4840 - Independent Study

SSCI 5000 - 19th Century Philosophy

SSCI 5013 - Philosophical Problems in the Social Sciences and Humanities

SSCI 5020 - Elements of Social Thought

SSCI 5023 - Research Perspectives in Social Science

SSCI 5050 - Topics in Social Science

SSCI 5101 - Pragmatism: Classical American Philosophy

SSCI 5242 - Bioethics

SSCI 5250 - Environmental Ethics

SSCI 5251 - Introduction to Legal Studies

SSCI 5400 - Women and Violence

SSCI 5520 - The City Beautiful: Art, Architecture and Theory in Urban History

SSCI 5530 - Social Construction of the Self

SSCI 5550 - Paris 1910: Art, Philosophy and Psychology

SSCI 5600 - Philosophy of Religion

SSCI 5650 - Reflections on Modernity

SSCI 5710 - Women and Religion

SSCI 5720 - Sexuality, Gender and Their Visual Representation

SSCI 5750 - Philosophical Psychology

SSCI 5770 - Imperialism, Post-Colonial Theory, Visual Discourse

SSCI 5830 - Grant Writing for Nonprofits

SSCI 5833 - Existentialism

SSCI 5840 - Independent Study: SSCI

SSCI 5920 - Philosophy of Media and Technology

SSCI 5933 - Philosophy of Eros

SSCI 5939 - Internship

SSCI 6010 - Methods and Theories of Feminism and Gender Studies

SSCI 6950 - Master's Thesis

SSCI 6960 - Master's Project or Report

Sociology

SOCY 1001 - Introduction to Sociology

SOCY 1111 - Freshman Seminar

SOCY 2001 - Inequalities in Social World

SOCY 2440 - Deviant Behavior

SOCY 2462 - Introduction to Social Psychology

SOCY 3001 - Urban Sociology

SOCY 3010 - Sociology of Human Sexuality

SOCY 3020 - Race and Ethnicity in the U.S.

SOCY 3040 - Drugs, Alcohol & Society

SOCY 3050 - Sociology of Education

SOCY 3080 - Sex and Gender

SOCY 3111 - Research Methods

SOCY 3115 - Quantitative Methods & Analysis

SOCY 3119 - Qualitative Methods

SOCY 3121 - Statistics

SOCY 3140 - Sociological Theory

SOCY 3297 - Social History of Asian Americans

SOCY 3300 - Social Problems

SOCY 3430 - Sociology for Pre-Health

SOCY 3440 - Medical Sociology

SOCY 3490 - Criminology

SOCY 3500 - Topics in Sociology

SOCY 3510 - Topics in Sociology

SOCY 3520 - Topics in Sociology

SOCY 3530 - Topics in Sociology

SOCY 3540 - Topics in Sociology

SOCY 3550 - Topics in Sociology

SOCY 3600 - Social Relations

SOCY 3650 - Sociology of Music

SOCY 3697 - Contemporary Asian American Experience

SOCY 3700 - Sociology of the Family

SOCY 3720 - Global Perspectives on Social Issues

SOCY 3840 - Independent Study: SOCY

SOCY 3939 - Internship

SOCY 4050 - Health Disparities

SOCY 4110 - Sociology of Health Care

SOCY 4220 - Population Change and Analysis

SOCY 4270 - Social Meanings of Reproduction

SOCY 4290 - Aging, Society and Social Policy

SOCY 4340 - Juvenile Delinquency

SOCY 4440 - Social Inequality

SOCY 4460 - Hate Groups and Group Violence

SOCY 4475 - Self and Identity

SOCY 4610 - Sociology of Religion

SOCY 4640 - Sociology of Childhood and Adolescence

SOCY 4650 - Sociology of Adulthood and Aging

SOCY 4700 - Sociology of Law

SOCY 4740 - Courts & Society

SOCY 4770 - Advanced Topics in Sociology

SOCY 4771 - Advanced Topics in Sociology

SOCY 4772 - Advanced Topics in Sociology

SOCY 4773 - Advanced Topics in Sociology

SOCY 4774 - Advanced Topics in Sociology

SOCY 4780 - Violence in Relationships

SOCY 4830 - Senior Capstone: Worklife Practices & Policies

SOCY 4840 - Independent Study: SOCY

SOCY 4880 - Directed Research

SOCY 4910 - Research Practicum

SOCY 5000 - Professional Seminar: Sociological Inquiry

SOCY 5016 - Social Theory

SOCY 5024 - Seminar: Research Methods I

SOCY 5050 - Health Disparities

SOCY 5110 - Sociology of Health Care

SOCY 5183 - Seminar: Quantitative Data Analysis

SOCY 5193 - Seminar: Qualitative Data Analysis

SOCY 5220 - Population Change and Analysis

SOCY 5440 - Social Inequality

SOCY 5475 - Self and Identity

SOCY 5550 - Seminar: Sociology of the Family

SOCY 5610 - Sociology of Religion

SOCY 5640 - Sociology of Childhood and Adolescence

SOCY 5650 - Sociology of Adulthood and Aging

SOCY 5660 - Seminar: Social Psychology

SOCY 5680 - Hate Groups and Group Violence

SOCY 5690 - Crime and Inequality Over the Life Course

SOCY 5740 - Courts & Society

SOCY 5750 - Seminar: Criminology

SOCY 5770 - Advanced Topics in Sociology

SOCY 5771 - Advanced Topics in Sociology

SOCY 5772 - Advanced Topics in Sociology

SOCY 5773 - Advanced Topics in Sociology

SOCY 5774 - Advanced Topics in Sociology

SOCY 5780 - Violence in Relationships

SOCY 5840 - Independent Study: SOCY

SOCY 5939 - Internship

SOCY 5955 - Master's Thesis

SOCY 5964 - Master's Report

Spanish

SPAN 1000 - Introduction to Cultures of the Spanish Speaking World

SPAN 1010 - Beginning Spanish I

SPAN 1011 - Intensive Spanish

SPAN 1020 - Beginning Spanish II

SPAN 1021 - Intensive Spanish

SPAN 1111 - Freshman Seminar

SPAN 1995 - Travel Study

SPAN 2110 - Second Year Spanish I

SPAN 2120 - Second Year Spanish II

SPAN 2125 - Spanish For Heritage Speakers I

SPAN 2126 - Spanish for Heritage Speakers II

SPAN 2130 - Current Topics in the Spanish-Speaking World

SPAN 2939 - Internship

SPAN 2995 - Travel Study

SPAN 3010 - Spanish Composition I

SPAN 3020 - Spanish Composition II

SPAN 3030 - Spanish Oral Proficiency

SPAN 3050 - Advanced Spanish Grammar

SPAN 3060 - Hispanic Phonetics: Theory and Practice

SPAN 3101 - Introduction to the Study of Literature

SPAN 3199 - Topics in Spanish Literature

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 3225 - Special Topics In Hispanic Culture

SPAN 3230 - Ibero-American Cultures through Film

SPAN 3240 - Food Metaphors: Ibero-American Cuisine and Culture

SPAN 3240 - Food Metaphors: Ibero-American Cuisine and Culture

SPAN 3270 - Bilingual Communities: Spanish as a Language of Contact

SPAN 3400 - Survey of Spanish Literature I

SPAN 3410 - Survey of Spanish Literature II

SPAN 3510 - Survey of Spanish American Literature II

SPAN 3550 - Spanish American Short Story

SPAN 3700 - Spanish for International Business I

SPAN 3710 - Spanish for International Business II

SPAN 3730 - Special Topics in Spanish for International Business

SPAN 3782 - Introduction to Translation I

SPAN 3792 - Introduction to Translation II

SPAN 3840 - Independent Study: SPAN

SPAN 3939 - Internship

SPAN 3995 - Travel Study

SPAN 4010 - History of the Spanish Language

SPAN 4020 - Spanish Sociolinguistics

SPAN 4060 - Dialects of the Spanish-Speaking World

SPAN 4070 - Spanish Applied Linguistics & Second Language Acquisition

SPAN 4076 - Spanish in Colorado

SPAN 4080 - Spanish in the United States

SPAN 4099 - Special Topics in Linguistics

SPAN 4110 - Contemporary Spanish Literature

SPAN 4130 - Medieval Spanish Literature

SPAN 4150 - Masterpieces of Spanish Literature

SPAN 4170 - Golden Age Drama

SPAN 4180 - Modernism

SPAN 4190 - Nineteenth-Century Spanish Novel

SPAN 4300 - Generation of 1898

SPAN 4320 - Interculturalism and Transnationalism in Modern Spain

SPAN 4330 - Modern Culture of Spain through Film and Narrative

SPAN 4340 - Race, Class, and Gender in Spanish Golden Age Literature

SPAN 4350 - Don Quijote

SPAN 4360 - Women and the Spanish Civil War

SPAN 4380 - Romanticism in Spain

SPAN 4399 - Special Topics: Spanish Peninsular Literature

SPAN 4401 - Survey of Spanish-American Literature I: Pre-1898

SPAN 4411 - Contemporary Spanish-American Novel

SPAN 4450 - Masterpieces of Spanish-American Literature

SPAN 4501 - Borges: An Introduction to His Labyrinths

SPAN 4512 - Contemporary Argentine Short Stories

SPAN 4521 - Mexican Literature I: pre-Columbian and Colonial

SPAN 4522 - Mexican Literature II: 19th to 21st Centuries

SPAN 4525 - Orientalisms In The Hispanic Tradition

SPAN 4541 - Unexpected Lives: Ibero-American Queer Cinema

SPAN 4550 - Garcia Marquez: Words of Magic

SPAN 4590 - Ibero-American Thought

SPAN 4599 - Special Topics: Latin American Literature

SPAN 4600 - Seminar in Spanish Creative Writing: Poetry and Short Fiction

SPAN 4840 - Independent Study: SPAN

SPAN 4880 - Directed Research

SPAN 4970 - Special Topics in Literature

SPAN 5000 - Introduction to Graduate Studies in Spanish

SPAN 5010 - History of the Spanish Language

SPAN 5020 - Spanish Sociolinguistics

SPAN 5060 - Dialects of the Spanish-Speaking World

SPAN 5070 - Spanish Applied Linguistics & Second Language Acquisition

SPAN 5076 - Spanish in Colorado

SPAN 5080 - Spanish in the United States

SPAN 5099 - Special Topics in Linguistics

SPAN 5110 - Contemporary Spanish Literature

SPAN 5130 - Medieval Spanish Literature

SPAN 5150 - Masterpieces of Spanish Literature

SPAN 5170 - Golden Age Drama

SPAN 5180 - Modernism

SPAN 5190 - Nineteenth-Century Spanish Novel

SPAN 5300 - Generation of 1898

SPAN 5320 - Interculturalism and Transnationalism in Modern Spain

SPAN 5330 - Modern Culture of Spain through Film and Narrative

SPAN 5340 - Race, Class, and Gender in Spanish Golden Age Literature

SPAN 5350 - Don Quijote

SPAN 5360 - Women and the Spanish Civil War

SPAN 5380 - Romanticism in Spain

SPAN 5399 - Special Topics: Spanish Peninsular Literature

SPAN 5401 - Survey of Spanish-American Literature I: Pre-1898

SPAN 5411 - Contemporary Spanish-American Novel

SPAN 5450 - Masterpieces of Spanish-American Literature

SPAN 5501 - Borges: An Introduction to His Labyrinths

SPAN 5512 - Contemporary Argentine Short Stories

SPAN 5521 - Mexican Literature I: pre-Columbian and Colonial

SPAN 5522 - Mexican Literature II: 19th to 21st Centuries

SPAN 5525 - Orientalisms In The Hispanic Traditions

SPAN 5541 - Unexpected Lives: Ibero-American Queer Cinema

SPAN 5550 - Garcia Marquez: Words of Magic

SPAN 5590 - Ibero-American Thought

SPAN 5599 - Special Topics: Latin American Literature

SPAN 5600 - Seminar in Spanish Creative Writing: Poetry and Short Fiction

SPAN 5840 - Independent Study: SPAN

SPAN 5880 - Directed Research

SPAN 5939 - Internship

SPAN 5950 - Master's Thesis

SPAN 5970 - Special Topics in Literature

Special Education

SPED 4010 - Intentional Interventions for Exceptional Learners

SPED 4030 - Understanding (dis)Ability in Contemporary Classrooms

SPED 4140 - Assessment: Inquiry, Instruction, & Intervention

SPED 4151 - Slashing Stigmas: Promoting Positive Behaviors

SPED 4201 - Ecological Systems for Social Emotional Development

SPED 4300 - Family, Professional, and Community Collaboration

SPED 4400 - Universal Design for Learning (UDL)

SPED 4500 - Transition and Secondary Methods in Special Education

SPED 4600 - Special Education Law: Ethics and Compliance

SPED 4710 - Significant Health Support Needs Academy

SPED 4720 - Significant Supports for Challenging Behavior Academy

SPED 4730 - Significant Communication Support Needs Academy

SPED 4740 - Intersections of Literacy, Culture, & Exceptionality

SPED 4750 - Orientation to Special Education

SPED 4780 - Literacy Interventions in Special Education

SPED 4800 - Orientation to Early Intervention Services

SPED 4805 - Fundamentals of the IFSP Process

SPED 4810 - Early Intervention Teamwork

SPED 4815 - Working with Families

SPED 4820 - Instructional Strategies for Early Intervention

SPED 4825 - Promoting Social Emotional Development

SPED 4830 - Health Support Needs in Early Intervention

SPED 4835 - Language and Early Literacy Development

SPED 4840 - Communication Support Needs Early Intervention

SPED 4845 - Individualized Intervention Infants/Toddlers

SPED 4850 - Transition to Age 3

SPED 4855 - Interpersonal Skills for DI Assistants

SPED 4860 - Personal Growth Development for DI Assistants

SPED 4865 - Instructional & Assistive Technology in EI

SPED 4870 - Autism Spectrum Disorder in Early Intervention

SPED 4910 - Special Education Generalist Internship and Site Seminar I

SPED 4915 - Practicum For Developmental Intervention Assistant

SPED 4919 - CO-TOP Practicum

SPED 5000 - Universal Design for Learning (UDL)

SPED 5000 - Universal Design for Learning (UDL)

SPED 5010 - Intentional Interventions for Exceptional Learners

SPED 5030 - Understanding (dis)Ability in Contemporary Classrooms

SPED 5050 - Assessment & Advocacy for Multilingual Learners

SPED 5120 - Negotiating The Special Education Teaching Process

SPED 5140 - Assessment: Inquiry, Instruction, & Intervention

SPED 5151 - Slashing Stigmas: Promoting Positive Behaviors

SPED 5201 - Ecological Systems for Social Emotional Development

SPED 5300 - Family, Professional, and Community Collaboration

SPED 5401 - Action Research and Leadership in Special Education

SPED 5401 - Action Research and Leadership in Special Education

SPED 5440 - Ethics and Implementation ABA

SPED 5450 - Introduction to ABA and Terminology

SPED 5460 - ABA Practical Applications

SPED 5470 - ABA Data

SPED 5480 - ABA Advanced Data and Behavioral Plans and Applications

SPED 5490 - Autism In Early Intervention

SPED 5500 - Transition and Secondary Methods in Special Education

SPED 5530 - Language & Literacy Acquisition Div Lrn

SPED 5600 - Special Education Law: Ethics and Compliance

SPED 5740 - Intersections of Literacy, Culture, & Exceptionality

SPED 5780 - Literacy Interventions in Special Education

SPED 5840 - Independent Study: SPED

SPED 5918 - ABA Practicum

SPED 5919 - ABA Intensive Practicum

SPED 5930 - Special Education Generalist Internship and Site Seminar I

SPED 5931 - Special Education Generalist Internship and Site Seminar II

SPED 5932 - Special Education Generalist Internship and Site Seminar III

SPED 5933 - Special Education Generalist Internship and Site Seminar IV

SPED 6950 - Master's Thesis

Sustainability

SUST 3010 - The Non-Sustainable Past

SUST 3011 - Toward a Sustainable Future

SUST 3416 - Aquaponic Farming

SUST 3840 - Independent Study

SUST 3939 - Internship

SUST 4840 - Independent Study

SUST 4880 - Directed Research

SUST 4960 - Capstone in Sustainability

SUST 5880 - Directed Research

Taxation

MTAX 6405 - Tax of Property Transactions

MTAX 6425 - Taxation of S Corporations and Their Shareholders

MTAX 6455 - Tax Aspects Relating to Exempt Organizations

MTAX 6465 - State and Local Taxation

MTAX 6470 - Professional Judgment and Ethical Decisions in Tax

MTAX 6490 - Income Tax of Trusts, Estates, and Beneficiaries

MTAX 6495 - Travel Study: Washington, D.C. Tax Experience

MTAX 6840 - Tax Independent Study

MTAX 6939 - Tax Internship/Cooperative Education

Teacher Education

TCED 1111 - Freshman Seminar

TCED 4800 - Workshop: Teacher Education

TCED 5000 - Special Topics: Teacher Education

Theatre

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 1770 - Art Direction and Design Skills I

THTR 1890 - Production Crafts I

THTR 1891 - Production Crafts Lab

THTR 1895 - Production Crafts II

THTR 2220 - Acting: Performance for Film, Theatre, and TV

THTR 2375 - Design and Decoration Survey

THTR 2380 - Costume History Survey

THTR 2400 - Technical Drawing for Production

THTR 2450 - Introduction to Performing Arts and Events Management

THTR 2510 - Introduction to Oral Interpretation

THTR 2531 - Acting for Non-Theatre Majors

THTR 2560 - Topics in Theatre

THTR 2600 - Studio I: Dynamics of Content Creation

THTR 2710 - Theatrical Design, Aesthetics, Production I

THTR 2770 - Art Direction & Design Skills II

THTR 2820 - Departmental Production

THTR 2821 - Multi-Arts Performance

THTR 2822 - Affiliated Theatre Production

THTR 2823 - Theatre Buffs Production

THTR 2824 - Theatre Practice: Management

THTR 2840 - Independent Study: THTR

THTR 2890 - Production Crafts III

THTR 2895 - Production Crafts IV

THTR 2900 - Dramatic Writing for Stage and Screen

THTR 3010 - Stage and Production Management

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 3530 - Acting: Character and Text

THTR 3531 - Theatre of Social Responsibility

THTR 3550 - World Theatre

THTR 3560 - Topics in Theatre

THTR 3561 - Topics in Theatre: Honors in Humanities Cluster

THTR 3580 - Theatre for Children

THTR 3610 - Performance: Theory/History/Criticism I

THTR 3611 - Drama of Diversity

THTR 3620 - Performance: Theory/History/Criticism II

THTR 3720 - Lighting Design

THTR 3725 - Arts in Action

THTR 3735 - Career Creation

THTR 3760 - Sound Design for the Theater

THTR 3765 - Digital Visualization for Production

THTR 3770 - Production Design Studio I

THTR 3775 - Production Design Studio II

THTR 3840 - Independent Study: THTR

THTR 3995 - Travel Study Topics

THTR 4090 - Senior Seminar & Project

THTR 4200 - Capstone: Theatre Practice

THTR 4350 - Selected Studies in Theatre & Film

THTR 4530 - Acting: Character and Media

THTR 4560 - Topics in Theater

THTR 4570 - Creative Drama

THTR 4580 - Theatre for Children

THTR 4611 - American Theatre History

THTR 4730 - Advanced Scenic Design

THTR 4760 - Topics in Design

THTR 4770 - Advanced Production Design Studio

THTR 4820 - Theatre Practice

THTR 4840 - Independent Study: THTR

THTR 5530 - Acting: Character and Media

THTR 5550 - Playwriting: The Short Form

THTR 5560 - Topics in Theatre

THTR 5570 - Creative Drama

THTR 5580 - Theatre for Children

THTR 5611 - American Theatre History

THTR 5840 - Independent Study: THTR

THTR 5939 - Internship

THTR 5995 - Travel Study

THTR 6840 - Independent Study: THTR

THTR 6950 - Master's Thesis

Theatre & Film General Courses

TFVP 1100 - Introduction to Theatre, Film, and Television

TFVP 1110 - Production Design: Theatre, Film and Video

TFVP 1550 - Scriptwriting I

TFVP 3222 - Theatre, Film & Video Business

TFVP 3620 - Acting Styles

TFVP 3730 - Scenery Design

TFVP 3740 - Costume Design

TFVP 3820 - Production Process

TFVP 3860 - Applications Seminar

TFVP 3910 - BA Junior Project

TFVP 3939 - Internship

TFVP 4095 - Senior Thesis Project

TFVP 4560 - Directors at Work

TFVP 4570 - Directing Practicum

TFVP 4910 - BA Senior Project

Univ Honors and Leadership

UNHL 1100 - The Life of the Mind

UNHL 2755 - UHL Seminar

UNHL 2840 - Independent Study

UNHL 2850 - Faculty-Mentored Research

UNHL 2939 - Internship

UNHL 3010 - Leadership Behavior: Historical and Contemporary Perspectives

UNHL 3100 - Ethics & Leadership: An Introduction

UNHL 3110 - Leadership, Communication, and Conflict

UNHL 3150 - Negotiation, Bargaining, and Leadership

UNHL 3250 - Leadership and Sustainability

UNHL 3310 - Innovation, Cutting-Edge Knowledge, and Self-Guided Learning

UNHL 3501 - Love and Death in the Greek Classics

UNHL 3503 - Ethics, Academic Integrity, and Social Responsibility

UNHL 3520 - Ancient Human Environmental Impacts

UNHL 3610 - Neuroscience and Society

UNHL 3620 - Migration, Modernity, and Literacy

UNHL 3625 - Food Justice: Urban Agriculture, Place, and Culture

UNHL 3810 - Understanding and Dealing with Uncertainty

UNHL 3820 - The Economics of Life

UNHL 3825 - Irish Music, Peace, Politics, and Popular Culture

UNHL 3830 - Jazz in American Culture

UNHL 3832 - Theater Practices, Politics, and Social Justice

UNHL 3840 - Creativity and Social Change

UNHL 3840 - Creativity and Social Change

UNHL 3910 - Ideology and Revolution

UNHL 3939 - Internship

UNHL 3995 - Global Study

UNHL 4815 - The Science of Food

UNHL 4820 - Scientific Thinking

UNHL 4825 - Nuclear Technology: Dilemmas & Policies of Science

UNHL 4840 - Independent Study

UNHL 4850 - Faculty-Mentored Research

UNHL 4991 - Senior Research Seminar I

UNHL 4992 - Senior Research Seminar II

Urban & Regional Planning

URPL 5000 - Planning History and Theory

URPL 5010 - Planning Methods

URPL 5020 - Planning Law and Institutions

URPL 5030 - The Planning Profession

URPL 5040 - Urban Sustainability

URPL 5050 - Urban Development

URPL 5060 - Planning Workshop

URPL 6000 - Planning Project Studio

URPL 6200 - Land Development Regulations

URPL 6205 - Plan Making

URPL 6210 - Planning Communication

URPL 6215 - Analyzing the Built Environment

URPL 6220 - Advanced Research Techniques

URPL 6249 - Project Management

URPL 6250 - GIS Analysis

URPL 6255 - Emerging Planning Technologies

URPL 6260 - Advanced Geo-Spatial Methods

URPL 6300 - Planning Healthy Communities

URPL 6305 - Healthy Community Assessments

URPL 6310 - Community Food System Planning

URPL 6349 - Global Health Studies II

URPL 6350 - Form and Formation of Cities

URPL 6355 - Urban Redevelopment Strategies

URPL 6360 - Urban Infrastructure

URPL 6365 - Parks and Public Spaces

URPL 6397 - Design Policy/Regulation

URPL 6398 - Design Process

URPL 6399 - Introduction to Sustainable Urban Infrastructure

URPL 6400 - Community Development

URPL 6405 - Urban Housing

URPL 6410 - Social Justice in Planning

URPL 6449 - Urban Social Problems

URPL 6450 - Urban Economic Systems

URPL 6455 - Real Estate Development and Finance

URPL 6460 - Green Real Estate Development

URPL 6499 - Preservation Theory and Practice

URPL 6500 - Environmental Planning/Management

URPL 6505 - Enviro. Policy & Regulation

URPL 6510 - Energy/Natural Res. Planning

URPL 6515 - Sustainable Planning & Design

URPL 6548 - Defining & Measuring Sustainability

URPL 6549 - Environmental Impact Assessment

URPL 6550 - Transportation Planning/Policy

URPL 6555 - Transportation and Land Use

URPL 6560 - Transit Planning

URPL 6565 - Pedestrian & Bicycle Planning

URPL 6600 - Regional Planning and Economic Analysis

URPL 6605 - Regional Economic Systems

URPL 6610 - Planning Sustainable Suburbs

URPL 6615 - Small Town, Rural, and Resort Planning

URPL 6620 - Tourism and Resort Planning

URPL 6625 - Sustainable Planning for Tourism and Small Towns

URPL 6645 - Disaster/ClimateChangePlanning

URPL 6650 - Planning in the Dev. World

URPL 6655 - Comparative International Planning

URPL 6730 - International Studies Preparation

URPL 6800 - Special Topics: Urban and Regional Planning

URPL 6805 - Planning Internship

URPL 6810 - Independent Study: URPL

URPL 6900 - Planning Capstone

URPL 6920 - Planning Thesis A

URPL 6925 - Planning Thesis B

Urban Design

URBN 6610 - Design Studio I

URBN 6611 - Design Studio II

URBN 6612 - International Design Studio

URBN 6633 - Form and Formation of Cities

URBN 6640 - History of the City

URBN 6641 - Design Process

URBN 6642 - Design Policy

URBN 6643 - Graphics for Planners

URBN 6644 - Sustainable Urbanism

URBN 6645 - Global Design Practice

URBN 6651 - Design Practice

URBN 6652 - Design Seminar

URBN 6686 - Special Topics: Urban Design

URBN 6730 - International Studies Preparation

URBN 6840 - Independent Study: URBN

URBN 6930 - Urban Design Internship

Urban Teacher Education

UEDU 1930 - Intro To Urban Education

UEDU 4040 - Exploring Diversity in Content and Pedagogy I

UEDU 4050 - Capstone: Curriculum Planning through Social Studies

UEDU 4100 - Secondary Literacy Instruction and Assessment

UEDU 4110 - Tchg Literacy in Eng Ed

UEDU 4200 - Theory and Methods of Teaching Secondary English

UEDU 4201 - Adolescent Literature

UEDU 4464 - Methods of Teaching Social Studies

UEDU 4465 - Methods of Teaching History

UEDU 4840 - Independent Study

UEDU 4845 - Special Topics:

UEDU 4931 - Internship & Lrng Comm I

UEDU 4932 - Internship & Lrng Comm II

UEDU 4933 - Internship & Lrng Comm III

UEDU 4934 - Extended Internship & Learning Community

UEDU 5015 - TFA Professional Learning Communities

UEDU 5040 - Exploring Diversity in Content and Pedagogy I

UEDU 5050 - Capstone: Curriculum Planning through Social Studies

UEDU 5060 - Motivation and Engagement in Curriculum and Learning

UEDU 5100 - Secondary Literacy Instruction and Assessment

UEDU 5110 - Tchg Literacy in Eng Ed

UEDU 5200 - Theory and Methods of Teaching Secondary English

UEDU 5201 - Adolescent Literature

UEDU 5464 - Methods Teachg Social Studies

UEDU 5465 - Methods of Teaching History

UEDU 5705 - Global Experiential Learning

UEDU 5710 - Global Education Capstone Project

UEDU 5840 - Independent Study

UEDU 5845 - Special Topics:

UEDU 5931 - Internship & Lrng Comm I

UEDU 5932 - Internship & Lrng Comm II

UEDU 5933 - Internship & Lrng Comm III

UEDU 5934 - Extended Internship & Learning Community

Women's Studies

WGST 1050 - Introduction to Women's and Gender Studies

WGST 1111 - Freshman Seminar

WGST 2900 - Smart Girl Leadership Training and Practicum

WGST 3010 - Sociology of Human Sexuality

WGST 3020 - Gender, Sexuality and Race in American Popular Culture

WGST 3080 - Sex and Gender

WGST 3343 - Women in U.S. History

WGST 3450 - Twentieth Century Women Writers

WGST 3700 - Sociology of the Family

WGST 3840 - Independent Study: WGST

WGST 3939 - Internship

WGST 4215 - Women's Rights, Human Rights: Global Perspectives

WGST 4230 - Women in the West

WGST 4248 - Gender, Globalization and Development

WGST 4303 - Sex and Gender in Modern Britain

WGST 4306 - Survey of Feminist Thought

WGST 4307 - History of Sexuality

WGST 4308 - Contemporary Feminist Thought

WGST 4345 - Gender, Science, and Medicine: 1600 to the Present

WGST 4420 - Goddess Traditions

WGST 4500 - Feminist Philosophy

WGST 4510 - Whores and Saints: Medieval Women

WGST 4511 - French Women Writers

WGST 4540 - Race, Class, and Gender in Spanish Golden Age Literature

WGST 4555 - International Women's Resistance

WGST 4564 - Gender and Politics

WGST 4610 - Communication, media, and sexuality

WGST 4710 - Women and Religion

WGST 4827 - Women and the Law

WGST 4840 - Independent Study

WGST 4880 - Directed Research

WGST 4933 - Philosophy of Eros

WGST 5230 - Women in the West

WGST 5248 - Gender, Globalization and Development

WGST 5303 - Sex and Gender in Modern Britain

WGST 5306 - Survey of Feminist Thought

WGST 5307 - History of Sexuality

WGST 5308 - Contemporary Feminist Thought

WGST 5345 - Gender, Science and Medicine: 1600 to the Present

WGST 5420 - Goddess Traditions

WGST 5500 - Feminist Philosophy

WGST 5510 - Whores and Saints: Medieval Women

WGST 5511 - French Women Writers

WGST 5540 - Race, Class and Gender in Spanish Golden Age Literature

WGST 5555 - International Women's Resistance

WGST 5710 - Women and Religion

WGST 5720 - Sexuality, Gender and Their Visual Representations

WGST 5840 - Independent Study

WGST 5880 - Directed Research

WGST 5900 - Smart Girl Coaching Training and Practicum

WGST 5933 - Philosophy of Eros

WGST 6010 - Methods and Theories of Feminism and Gender Studies

Other Courses

HDFR 1020 - Black and Latino Children

HDFR 1030 - Who am I? Cultural Identity, Family, Diverse Soc Sys

HDFR 1030 - Who am I? Cultural Identity, Family, Diverse Soc Sys

HDFR 1111 - Freshman Seminar

HDFR 3002 - Preparing to be a HDFR Professional

HDFR 3002 - Preparing to be a HDFR Professional

HDFR 3050 - Children's Thinking and Assessment

HDFR 3250 - Families in Global Perspectives

HDFR 4000 - Human Sexuality

HDFR 4001 - Families and Parenting

HDFR 4002 - Family Life and Community Programming I

HDFR 4002 - Family Life and Community Programming I

HDFR 4003 - Leadership and Organizations

HDFR 4004 - Family and Comm. Prog. II Grant Writing/Fundraising

HDFR 4010 - Family and Cultural Diversity

HDFR 4010 - Family and Cultural Diversity

HDFR 4040 - Latino Families in School and Communities

HDFR 4045 - Abuelos (Grandparents) Latino Families

HDFR 4045 - Abuelos (Grandparents) Latino Families

HDFR 4050 - Foundations of Student Affairs

HDFR 4075 - Family Policy & Law

HDFR 4075 - Family Policy & Law

HDFR 4090 - Helping Profession Skills in HDFR

HDFR 4110 - Human Learning

HDFR 4130 - College Student Development

HDFR 4240 - Cognition and Instruction

HDFR 4260 - Family Systems and Social Justice

HDFR 4910 - Practicum

HDFR 4910 - Practicum

HDFR 5003 - Leadership and Organizations

HDFR 5004 - Family and Comm. Prog. II Grant Writing/Fundraising

HDFR 5010 - Family and Cultural Diversity

HDFR 5040 - Latino Families in School and Communities

HDFR 5045 - Abuelos (Grandparents) Latino Families

HDFR 5045 - Abuelos (Grandparents) Latino Families

HDFR 5075 - Family Policy & Law

HDFR 5075 - Family Policy & Law

HDFR 5090 - Helping Profession Skills in HDFR

HDFR 5260 - Family Systems Social Justice

HDFR 6000 - Family Theories

HDFR 6000 - Family Theories

HDFR 6120 - Family Dynamics

HDFR 7000 - Family Theories

HDFR 7000 - Family Theories

IWKS 4100 - Advanced Human-Centered Design

IWKS 4500 - Molecular Biology for Computer Scientists & Engineers

IWKS 5100 - Advanced Human-Centered Design

IWKS 5500 - Molecular Biology for Computer Scientists & Engineers

MARC 4880 - Directed Research

MARC 5880 - Directed Research