

# College of Architecture and Planning

**Dean**  
Mark Gelernter

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## Contact

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## Faculty

**Professors**  
Ernesto Arias, Gene Bressler,  
Thomas Clark, Mark Gelernter,  
George Hoover, Joseph Juhasz, Yuk Lee,  
Patricia O’Leary, John Prosser,  
Fahriye Sancar, Peter Schneider,  
Luis Summers, Willem van Vliet

**Associate Professors**  
Austin Allen, Amir Ameri, Lois Brink,  
Robert Flanagan, Phillip Gallegos,  
Julee Herdt, Michael Holleran,  
Lawrence Loftin III, Taisto Mäkelä,  
Raymond McCall, Jr.,  
Hans Morgenthaler, Ping Xu

**Assistant Professors**  
Barbara Ambach, Fred Andreas (adjunct),  
Michael Hughes, Michael Jenson,  
Joern Langhorst (visiting), Ann Komara,  
Brian Muller, Chris Smith (adjunct),  
Ekaterini Vlahos

**Senior Instructors**  
Lori Cockerham, John Frankhouser,  
Allen Harlow, Martha Hutchinson,  
Charles MacBride, Anthony Mazzeo,  
Eric Morris, Eric Olsen, George Pond,  
Jason Rebillot, Shane Rymer, Ranko Ruzic,  
Diana Shannon, Rick Sommerfeld,  
Bruce Wrightsman

*If you’re interested in a career in architecture, urban and regional planning, landscape architecture, or urban design, you’ll want to get acquainted with the College of Architecture and Planning on the downtown Denver campus of UCDHSC. We offer the only undergraduate and graduate education in these fields in the state of Colorado. Students intending to enter the design and planning professions normally 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, and urban design, and our graduate certificates in preservation and design build are taught on the downtown Denver campus, in the heart of a vital downtown. Our undergraduate programs are held in Boulder, an environment ideally suited to the needs of undergraduates (see the CU-Boulder catalog for details). We offer a multidisciplinary PhD in design and planning across the two campuses. 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.*

## The College’s Vision

The faculty have developed a new vision for the college, called integrative design. This vision asserts that the creation of meaningful and beautiful environments involves design plus research, and includes the following:

- focusing on real-world relevance, stressing technical, environmental, economic, social, cultural, aesthetic, and ethical concerns
- creating and using a knowledge base for design and planning decisions
- fostering a multidisciplinary culture of individuals, each of whom is an expert in one of the core design and planning disciplines
- seeking and supporting a rich diversity of ideas and people to sustain the diverse communities we serve

In seeking a match between the college’s core competencies and the design and planning challenges in the fast-growing Denver metro area and Western region, the college faculty are focusing on four themes: 1) pedagogy, 2) contemporary urbanism, 3) history, theory, conservation, and preservation; and 4) design,

including design/build, digital visualization and modeling, green/sustainable design, and the relationships between environments and health and behavior. This vision and these signature themes will position the college well, as we all tackle the significant challenges in the design and planning of our built environment in the next few decades.

## Special Activities and Programs

The college provides a diverse range of opportunities that enrich and enhance the education of its students. Through activities and functions—including a lecture series, a visiting critic series, exhibits, publications, and active student organizations—the college encourages contact among students, faculty, and members of the design professions. Each summer, the college offers foreign study-travel programs, which in recent years have traveled to Prague, Rome, Turkey, China, Helsinki, and Spain. The college also offers a semester abroad program in Florence for its undergraduates each fall and spring. The college makes available

a range of scholarships and fellowships, some of which are based on need, others on performance, and still others of which 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.

## College Facilities

The college's administrative headquarters and graduate programs are located at 1250 14th Street in downtown Denver, on the northeastern edge of the Auraria campus. This favorable location gives easy access both to the extensive campus facilities and to the urban amenities of Denver's lively lower downtown. Most of the major professional design offices in Denver, and many planning firms and agencies, are within easy reach of the college. These provide many opportunities for contact between students and practitioners. College facilities include studio spaces for students, lecture and seminar rooms, design jury spaces, exhibition spaces, and faculty offices. The college also provides a photographic darkroom and studio, a model and furniture-making woodshop, a laser cutter lab, and an extensive computer lab whose focus is computer-aided design (CAD), computer 2-D and 3-D imaging, and analytic tools for planning. Also located in the college is a geographic information system (GIS) computer lab, which is open to all students of the University of Colorado at Denver and Health Sciences Center.

## Scholarships/Financial Aid

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 Education Fund, the American Planning Association, the American Society of Landscape Architects, and the Rocky Mountain Masonry Institute. For further information on these scholarships and graduate tuition awards, visit the college's Web site at [www.cudenver.edu/Academics/Colleges/ArchitecturePlanning/Graduate+Scholarships.htm](http://www.cudenver.edu/Academics/Colleges/ArchitecturePlanning/Graduate+Scholarships.htm) or request a list via e-mail at [angie.pendell@cudenver.edu](mailto:angie.pendell@cudenver.edu). For information on federal and state financial aid, contact the Office of Financial Aid, University of Colorado at Denver and Health Sciences Center, Campus Box 125, P.O. Box 173364, Denver, CO 80217-3364, 303-556-2886, or visit [www.cudenver.edu/finaid](http://www.cudenver.edu/finaid).

## ADMISSIONS

### General Requirements

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

- University of Colorado Application for Graduate Admission form
- Two official transcripts from each institution the applicant has attended. Transcripts must be mailed by the institution directly to the college. A certified literal English translation also must be submitted for documents that are not in English.
- Letters of recommendation: U.S. residents, three letters; international applicants, four letters.
- Statement of purpose: Applicants to all programs must submit a statement summarizing career objectives and reasons for pursuing the intended program of study. Applicants to the MURP program should indicate their area of concentration. Applicants to the PhD program also must indicate a proposed area of specialization and, if possible, a potential faculty mentor.
- Supporting materials for architecture and landscape architecture: Applicants to the graduate architecture and landscape architecture programs are required to submit a portfolio (6-12 bound pages,

8.5 × 11 inches). Slides are not accepted. A portfolio is an orderly presentation of one's work. This includes examples of creative and analytical work including, but not limited to, essays, papers, photographs, and photographic reproductions of artistic work such as sculptures, drawings, paintings, musical compositions, and other fine arts. A stamped, self-addressed envelope must be included for return of the portfolio. Applicants to architecture and landscape architecture are encouraged to submit Graduate Record Exam (GRE) scores if their GPAs are below 3.0.

- Supporting materials for urban and regional planning: Applicants to the urban and regional planning program should submit, in an 8.5 × 11-inch bound document, their statement of purpose, a resume, and a copy of a student or professional paper or project. Applicants to the urban and regional planning program are encouraged to submit GRE (general) scores; those whose undergraduate GPA is below 3.0 are required to submit GRE scores.
- Supporting materials for the PhD: Applicants to the PhD program must submit a sample of written work and any other evidence relevant to admission to the program, in accordance with submission guidelines that can be obtained from the college. Applicants to the PhD program are required to submit GRE scores.
- Application fee. Nonrefundable (\$50, U.S. residents; \$75, international applicants).

## International Applicants

International applicants are required to submit the following documents in addition to the credentials listed under general requirements.

- Test of English as a Foreign Language (TOEFL) score. For the professional programs in architecture, landscape architecture, urban design, and urban and regional planning, the College of Architecture and Planning requires a minimum International English Language Testing System (IELTS) score of 6+ or TOEFL score of 525 (paper based) or 197 (computer based) for students from non-English speaking countries. However, the college requires students with TOEFL scores between 525 and 550 (paper based) or 213 (computer based) to register for an English course when they arrive at the University of Colorado at Denver and Health Sciences Center. Applicants to the PhD in Design and Planning must have achieved a TOEFL score of at least 575 (paper based) or 233 (computer based).
- Financial Resources Statement. International applicants must provide evidence that they have sufficient funds available. Financial documents must be less than one year old. To provide this evidence, each international applicant should follow these instructions:
  - a. If an applicant's own money is to be used: In Part 2, Section 1 of the Financial Resources Statement, applicant's bank must certify that the full amount of money is on deposit in his or her account to meet tuition and expenses.
  - b. If an applicant is sponsored by a family member or friend: The sponsor must agree to provide the money and sign the Financial Resources Statement in Part 2, Section 2. The sponsor's bank also must certify that the sponsor has on deposit the amount of money the applicant will need for tuition and expenses. An original bank statement in U.S. dollars is required.
  - c. If an applicant has been awarded a scholarship, Part 2, Section 3 of the Financial Resources Statement must be completed. Statements used for other institutions will not be accepted. Photocopied documents are not accepted unless signed by the originator; signatures must be original.
- Copy of passport

## Application Dates and Deadlines

### Fall Semester

*All professional programs — February 15*

*PhD in Design and Planning — by March 1 to be considered for financial support*

## Spring Semester

*All programs — October 1*

*(In architecture, urban design, and landscape architecture, students starting in the spring will only be able to select from a reduced set of courses, and will get on track starting the next fall.)*

Applications received after these dates will be considered only if space is still available.

## Confirmation Deposit

A nonrefundable confirmation deposit of \$200 is required to secure an applicant's place in the architecture and landscape architecture programs, and in the PhD program. 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.

## ADDITIONAL INFORMATION

To request additional information, or to arrange a visit to the college, phone or e-mail:

**Undergraduate Programs**, 303-492-2804,  
peggy.gordon@colorado.edu

**Graduate Professional Programs**, 303-556-3382,  
ANPDeansoffice@storm.cudenver.edu

**PhD Program**, 303-492-1319, kkelley@colorado.edu

You may also write to:

Office of the Dean, College of Architecture and Planning, University of Colorado at Denver and Health Sciences Center, Campus Box 126, P.O. Box 173364, Denver, CO 80217-3364.

For periodical updates on all aspects of the college, see our Web site at [www.cudenver.edu/CAP](http://www.cudenver.edu/CAP).

## COMPUTING IN THE COLLEGE

The College of Architecture and Planning requires all incoming graduate students to acquire and utilize their own computers and software applications in their studies. To assist students with procurement of their personal computers, the IT Committee formulated performance-based computing specifications. These are listed on the Web site at [www.cudenver.edu/Academics/Colleges/ArchitecturePlanning/Computing+in+the+College/default.htm](http://www.cudenver.edu/Academics/Colleges/ArchitecturePlanning/Computing+in+the+College/default.htm). Please note that UCDHSC neither endorses nor requires students to procure a machine from a particular vendor. While desktop configurations are listed, students are urged to procure laptops mainly for reasons of security and mobility in studios and classrooms.

Software application (program) requirements relate to specific course curriculum. In general, students widely use products such as Microsoft Office for word processing, e-mail, presentations, and spreadsheet applications. Consult with instructors or refer to course syllabi regarding applications for imaging, CAD, GIS, modeling, or rendering prior to their procurement. In addition, not all programs are needed during the first semester; certain release versions may be preferable over others. The college intends to provide computer IT orientation sessions at the beginning of each semester.

## ACADEMIC POLICIES

### 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.

### 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 "IF" or "IW" 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 Office of Enrollment and Student Affairs on the downtown Denver campus.

### Retention of Student Work

The College of Architecture and Planning reserves the right to retain any student project submitted in fulfillment of class requirements for whatever period of time it deems necessary. This retained work is 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.

## PROGRAMS OF STUDY

### Architecture

**Chair, Department of Architecture:** Phillip Gallegos, 303-556-3282  
**Associate Chair, Graduate Program:** Hans Morgenthaler, 303-556-4227  
**Assistant Chair, Undergraduate Architecture Pre-Professional Program:** Allen Harlow, 303-492-5677

The architecture department's mission is to lead in the discovery, communication, and application of knowledge in the discipline of architecture. The department aims to excel in the education of its students, in the research and creative endeavors of its faculty, and in service to the community. To respond to this mission, the department has developed a unique intellectual, educational, and architectural culture.

First, the department celebrates its place in a very special set of landscapes—urbanized Denver and the Front Range, and the spectacular natural landscape of the high plains and the Rocky Mountains. The architecture department, therefore, focuses not only on the design of buildings, but also on the interactions between buildings and their urban and natural settings.

Second, the department examines the interplay between architectural form and the complex cultural and technological context in which architects operate. As a result of these dominant concerns, the department has created an academic environment that is intellectually stimulating and educationally challenging and that aims to educate students who will become leaders in the discipline and profession of architecture.

Third, the Department of Architecture follows the College of Architecture and Planning's mission of integrative design. The faculty research, teach, and practice ways to design environments that are meaningful and beautiful. We plan, shape, and interpret those environments in ways that are collaborative, responsible, sustainable, enabling, and integrative. Promoting and acknowledging diversity in subject matter, method, and orientation are essential to this integrative approach.

The faculty teach by integrating different design theories and practices into an educational matrix which emphasizes their connectedness, cross-disciplinary interdependence, research orientation, and real-world relevance. The department collaborates to produce new knowledge while adding to the understanding of the role and identity of design and research in each of our connected disciplines. In this collaborative matrix, each research and design project asks a critical question, then answers it using an appropriate method. These questions stress environmental, economic, social, cultural, aesthetic, and ethical concerns. In this knowledge-based matrix, our understanding of how integrative design shapes environments and settings constantly evolves and changes.

The Department of Architecture, along with the Department of Planning and Design, offers a bachelor of environmental design (BEnvd) on the Boulder campus. The Department of Architecture also offers two graduate degrees on the Denver campus: the master of architecture (MArch) and the master of urban design (MUD). The following statement from the National Architectural Accrediting Board (NAAB), which is responsible for accrediting all architecture programs in the United States, should help a student choose the appropriate degree program:

"In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the bachelor of architecture, the master of architecture, and the doctor of architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree."

The pre-professional degree offered by the College of Architecture and Planning is the BEnvd. The professional degree offered by the college is the master of architecture (MArch), which is fully accredited by the NAAB.

The master of architecture, the college's accredited professional degree for students intending to seek licensure as architects, offers two distinct paths. One track, the MArch/4+2, is offered to students who have completed the college's BEnvd or any other pre-professional design degree from any NAAB-accredited institution. A second track, the MArch/3.5, is available to students who have completed an unrelated undergraduate or graduate degree, or to students who hold professional architecture degrees from other countries, but who seek to obtain an NAAB-accredited architecture degree. Students holding professional architecture degrees from foreign institutions will be given advanced standing commensurate with their previous educational experiences.

### THE MASTER OF ARCHITECTURE (MArch)

#### MArch/4+2

The MArch/4+2 is intended for students who have completed the college's BEnvd or any other pre-professional architecture degree from any NAAB-accredited institution. This six-year plan of study, with completion of both the four-year undergraduate BEnvd offered on the Boulder campus and the accredited two-year MArch on the downtown Denver campus, has been fully endorsed by the NAAB.

#### Program Requirements

Students completing the college's bachelor of environmental design (BEnvd) on the Boulder campus—or completing a pre-professional degree from another NAAB-accredited institution—complete a minimum of four semesters of coursework (60 hours of credit) after entry into the MArch program. For further details on the BEnvd, and for descriptions of the pre-professional courses outlined below, see the University of Colorado at Boulder catalog.

Students entering ENVD 3210. Arch Studio II must have the permission of the program chair.

#### Term by Term: Six-year MArch Curriculum

##### Undergraduate Sequence

Four years at Boulder—30 credits per year (approx.), 120 total credits

##### FIRST YEAR

###### Fall (15 credit hours)

ENVD 1004-6. Intro to ENVD  
 ENVD 2003-3. Ecology and Design  
 UWRP 1150-3. Expository Writing  
 Elective-3. Non-ENVD Elective

###### Spring (15 credit hours)

ENVD 2002-3. ENVD Media  
 ENVD 2001-3. Intro to Social Factors in ENVD  
 Social Science-3. (see list of options)  
 Humanities-3. (see list of options)  
 Elective-3. Non-ENVD Elective

##### YEAR TWO

###### Fall (16 credit hours)

ARCH 3114-3. History and Theories of Arch I  
 ENVD 2110-6. Arch Studio I  
 MATH 1300-5. Calculus I  
 Elective-2. Non-ENVD Elective

###### Spring (14 credit hours)

ARCH 3214-3. History and Theories of Arch II  
 ENVD 3001-3. Environment and Behavior  
 PHYS 2010-5. College Physics I  
 Elective-3. ENVD Elective

## YEAR THREE

*Fall (15 credit hours)*

AREN 4035-3. Structures I  
ENVD 3210-6. Arch Studio II  
ENVD 3352-3. Arch Computer Media  
Elective-3. ENVD Elective (ending in '4')

*Spring (15 credit hours)*

AREN 4045-3. Architectural Structures II  
Elective-3. ENVD Elective (ending in '5')  
Electives-6. ENVD Electives  
Elective-3. Non-ENVD Elective

## YEAR FOUR

*Fall (15 credit hours)*

AREN 3050-3. Environmental Systems I  
ENVD 4310-6. Arch Studio III  
ENVD 3115-3. Building Materials and Systems  
Elective-3. ENVD Elective (ending in '2')

*Spring (15 credit hours)*

ARCH 4314-3. Arch Theory  
AREN 3060-3. Environmental Systems II  
ENVD 4410-6. Arch. Studio IV  
Elective-3. ENVD Elective

**Graduate Sequence**

Two years at Denver—30 credits per year (approx.), 60 total credits

## FIFTH YEAR

*Fall (15 credit hours)*

ARCH 6150-4. Comprehensive Design Studio\*\*  
ARCH 6151-2. Comprehensive Design Seminar  
LA 6632-3. Site Planning  
Electives-6.\*

*Spring (18 credit hours)*

ARCH 5320-3. Build Construction and Methods  
ARCH 6170-4. Advanced Design Studio  
ARCH 6171-2. Advanced Design Seminar  
Electives-6.\* (Take ARCH 6950-6. Thesis Preparation if undertaking a thesis in the next semester.)

## SIXTH YEAR

*Fall (15 credit hours)*

ARCH 5410-3. Professional Practice  
ARCH 6170-4. Advanced Design Studio  
—or—  
ARCH 6951 Thesis (6)  
ARCH 6171-2. Advanced Design Seminar or nothing  
if thesis taken

Electives-6.\* (Take ARCH 6950-6. Thesis Preparation if undertaking a thesis in the next semester.)

*Spring (15 credit hours)*

Electives-15\*

\* As of fall 1998, new students must take 9 credits each in cultural studies and professional studies (3 credits of which must emphasize the computer), and 6 credits in technology studies. The remaining 9 credits may be taken in any architecturally related electives on campus.

\*\* If a student does not have four undergraduate studios with a grade of A, he or she must enroll in Studio IV as the first graduate studio.

## MArch/3.5

The MArch/3.5 is intended for those students who have completed an unrelated undergraduate or graduate degree, or for students who hold professional architecture degrees from other countries. This three-and-one-half-year plan of study on the downtown Denver campus has been fully accredited by the NAAB.

**Prerequisites**

Students must complete the prerequisites of college-level trigonometry and physics before enrolling in ARCH 5310. Introduction to Building Technology. Since this class should be taken in the first semester in order to stay on track for graduation, students are strongly encouraged to complete the trigonometry and physics requirements before beginning the MArch program.

ARCH 5000. Math and Physics for Architects is offered in the summer on a pass/fail basis. This class meets the prerequisite requirements.

A Graphics Workshop is recommended for students who do not have a background in architectural drawing and model building. This class is offered each year before the beginning of the fall semester.

Students are also expected to have achieved a basic level of computer literacy, and should be familiar with PC or Apple operating systems.

**Program Requirements**

Students with a bachelor's or master's degree unrelated to architecture must complete a seven- or eight-semester sequence of coursework and accumulate a minimum of 114 semester hours of credit. Advanced standing will be given to students who have completed a non-NAAB-accredited professional architecture degree in another country, and who wish to obtain the NAAB-accredited degree from this college. These students will work with the associate chair of the department to develop an individualized plan of study commensurate with their previous degrees and experience, and will have to complete at least 60 hours of credit in residence within the College of Architecture and Planning.

**Course Sequence**

The MArch program is divided into five major components: design studies, 45 credit hours; cultural studies, 12 credit hours; technology studies, 18 credit hours; professional studies, 6 credit hours; and electives, 33 credit hours. A wide array of electives in these areas allows students to tailor their graduate studies to their own interests.

## FIRST YEAR

*Fall Semester (15 credit hours)*

ARCH 5110-6. Design Studio I  
ARCH 5111-3. Design Seminar I  
ARCH 5210-3. Introduction to Architecture  
ARCH 5310-3. Introduction to Building Technology

*Spring Semester (18 credit hours)*

ARCH 5120-4. Design Studio II  
ARCH 5121-2. Design Seminar II  
ARCH 5220-3. History of Architecture I  
ARCH 5320-3. Building Construction and Methods  
LA 6632-3. Site Planning  
Elective-3.\*

## SECOND YEAR

*Fall Semester (18 credit hours)*

ARCH 5130-4. Design Studio III  
ARCH 5131-2. Design Seminar III  
ARCH 5230-3. History of Architecture II  
ARCH 5240-3. Human Factors in Design  
ARCH 5330-3. Environmental Control Systems I  
Elective-3.\*

*Spring Semester (18 credit hours)*

ARCH 5140-4. Design Studio IV  
 ARCH 5141-2. Design Seminar IV  
 ARCH 5340-3. Environmental Control Systems II  
 ARCH 5350-3. Structures I  
 ARCH 5410-3. Professional Practice  
 Elective-3.\*

*Summer Semester (12 credit hours)*

ARCH 6150-4. Comprehensive Design Studio  
 ARCH 6151-2. Comprehensive Design Seminar  
 Electives-6.\*

## THIRD YEAR

*Fall Semester (18 credit hours)*

ARCH 5360-3. Structures II  
 ARCH 6170-4. Advanced Design Studio  
 ARCH 6171-2. Advanced Design Seminar  
 Electives-9.\*  
 —or—  
 ARCH 6950-6. Thesis Preparation and Electives-3.

*Spring Semester (15 credit hours)*

ARCH 6170-4. Advanced Design Studio  
 ARCH 6171-2. Advanced Design Seminar  
 Electives-9.\*  
 —or—  
 ARCH 6951-6. Thesis  
 Electives-9.\*

\* Students must take 9 elective credits in cultural studies, 9 elective credits in professional studies (3 credits of which must emphasize the computer), 6 elective credits in technology studies, and 9 elective credits in any architecturally related electives on campus.

## POST-PROFESSIONAL PROGRAMS

## The Post-Professional Program

The Post-Professional Degree Program is a mid-career, post-professional intensive course for those individuals in the design fields who seek to expand their knowledge and to advance their professional careers. In this program, students have the opportunity to study recent developments in their design fields resulting from advances in information technology, new theories and methods, and emergent discoveries and associations. The program currently offers two primary areas of study, the master of architecture II and the master of urban design degree programs. Each of these programs has a research orientation and agenda, and their general intent is to create an educational context within which the fundamental practices of architecture and urbanism can be examined, advanced, and extended. The programs have been designed to be both flexible and interdisciplinary so as to provide students with a broad range of options that can accommodate and respond to each student's own interests and study agenda through coursework, independent study, or optional training.

## Post-Professional Program: The Master of Architecture II

The master of architecture II is an advanced degree program that provides its students with a range of opportunities for exploring and extending their knowledge of the practice of architecture. **Students applying for admission to the program must have been awarded a five-year or six-year first-professional degree in architecture.** They may enter the master of architecture II program in any semester of the academic year.

**The master of architecture II program does not offer an NAAB first-professional degree; it is an advanced studies program for those who already hold this first-professional degree.**

Students in the program must complete 30 hours of credit in required, recommended, and elective coursework to qualify for the master of architecture II degree. To be eligible for graduation from the program, students must complete 12 credit hours of advanced design studio (ARCH 6170/6171 or UD 6600/6601) in the degree project sequence and 12 credit hours in required and/or focus-area coursework particular to their area of study. The remaining 6 credit hours are elective coursework. A typical sequence of coursework within a focus area leading to the award of the master of architecture II degree is as follows:

## SEMESTER ONE

Advanced Design Studio: 6 credits  
 Focus-area required/recommended course work: 6 credits  
 Elective course work: 3 credits

## SEMESTER TWO

Advanced Design Studio: 6 credits  
 Focus-area required/recommended course work: 6 credits  
 Elective course work: 3 credits

## Dual Degree Options

Students may enroll in a dual degree program with landscape architecture (MArch and MLA), with MURP (MArch and MURP), with MUD (MArch and MUD), or with the School of Business (MArch and MBA).

## Landscape Architecture

**Chair, Department of Landscape Architecture:** Gene Bressler,  
 303-556-3382

The department's mission is education, scholarly research, and service in the discipline and practice of landscape architecture. The program of study prepares students to engage questions of and relationships between land, landscape, people, and culture. It prepares students for the current practice of landscape architecture and provides a healthy setting for students to question, invent, create, test, and advance the knowledge and capacity of the profession. At the program's heart is design, as it embodies the processes that lead to the planning and design of landscapes and that, in turn, results in diverse and assessable outcomes of consequences and value.

The program's "laboratories" are the urban, suburban, rural, and wilderness landscapes associated with the Mountain, Front Range, High Prairie, and Western Slope regions of Colorado. These areas present diverse cultural and environmental situations and opportunities in which to shape regionally responsive landscape design and planning. Imperatives within the public and private realms of these landscapes fuel the academic and research agenda. While representing an accessible spectrum of good and bad examples and situations to study, the knowledge and experiences derived apply globally to multiple scales and cultures.

The current discourse of critical topics includes the following:

- the challenges associated with urban and suburban growth and development
- the planning and design leading to the making of healthy and sustainable cities, communities, and homes
- the role and making of civic infrastructure
- the use and conservation of precious land and water resources
- the reclamation and preservation of disturbed and historic landscapes
- the recognition and application of natural and urban conditions and values of the region

It is within this context that UCDHSC's Department of Landscape Architecture links theory with practice, history with change, technology with invention, and designers with their constituents.

## Program Objectives

Specific educational objectives of the program are as follows:

- To develop excellence in the design process and the creation of designed artifacts that lead to a variety of outcomes. Particular

emphasis is given to exploring the strategies, methods, and skills necessary to study, synthesize, experiment with, and evaluate design precedents, design, and design processes.

- To learn and develop competence in the core themes of the profession that include landscape architectural theory and precedent, technologies and materials, natural and cultural systems, and communications and inquiry media. Particular emphasis is placed on studying the means to develop ideas, to convey values, and to criticize work.
- To learn and utilize methods that enable the student to engage independent research and design investigation based on rigorous, original, and creative thinking, which leads to the completion of definitive scholarly work and/or enhances the outcome of creative works. Particular emphasis is placed on integrating research assignments within stated requirements of design studios, support classes, and thesis options.
- To provide a working knowledge of the institutional framework within which the design process occurs. Particular emphasis is placed on building a strong understanding of professional practice and the skills required therein including management, leadership, marketing, ethical conduct, and legal issues.
- To provide services using methods that apply to and extend course work, research, and creative work to real world situations. Particular emphasis is placed on participating in opportunities to implement, enhance, demonstrate, communicate, and evaluate ideas and skills, and to provide measurable benefits for constituents and ourselves.

## MASTER OF LANDSCAPE ARCHITECTURE (MLA)

### Prerequisites

Students are expected to have achieved a basic level of computer literacy. A graphics workshop is recommended for students who do not have a background in drawing and model building. The workshop is scheduled each year before the beginning of the fall semester.

### Program Requirements

The landscape architecture program offers professional and advanced professional graduate degree curricula leading to the degree master of landscape architecture (MLA). The first-professional degree program, requiring a six-semester sequence of course work totaling 90 credit hours, is fully accredited by the Landscape Architecture Accreditation Board (LAAB) and recognized by the Council of Educators in Landscape Architecture (CELA). Students completing the college's bachelor of environmental design on the Boulder campus—or completing an undergraduate design degree at another institution—are given advanced standing in the three-year program and must complete at least 65 semester hours of credit. The advanced professional degree program, for qualified students having already earned a first professional degree in landscape architecture or related discipline, requires 48 credit hours. Advanced standing may be commensurate with prior academic accomplishment.

**Course Sequence** (90-credit MLA for students without a professional degree in landscape architecture or related profession.)

The curriculum consists of core and elective course work. Core courses are grouped into six components: design studies, 36 credit hours; history and theory, 12 credit hours including 3 elective credit hours; landscape architectural technology, 14 credit hours including 3 elective credit hours; plants, 6 credit hours; and media, 4 credit hours; totaling 72 credit hours. The remaining semester credit hours are for additional elective courses.

**Typical 90-credit-hour program of study in required courses for the first professional MLA degree**

### FIRST YEAR

*Fall Semester—15 credit hours*

L A 5500-6. Introduction to Landscape Architectural Design Studio I  
L A 5510-3. Graphic Media in Landscape Architecture

L A 5521-3. History of Landscape Architecture  
L A 5572-3. Landscape Ecology

*Spring Semester—15 credit hours*

L A 5332-3. Landform Manipulation  
L A 5501-6. Introduction to Landscape Architectural Design Studio II  
L A 6632-3. Site Planning  
L A 6641-3. Landscape Architecture Computer Applications  
Elective-3.

### SECOND YEAR

*Fall Semester—15 credit hours*

L A 6631-3. Landscape Construction Materials and Methods  
L A 6600-6. Landscape Architectural Design Studio III  
L A 6670-3. Plants in Design  
Elective-3.

*Spring Semester—15 credit hours*

L A 6601-6. Landscape Architectural Design Studio IV  
L A 6620-3. Landscape Architecture Theory and Criticism  
Elective-3.

### THIRD YEAR

*Fall Semester—15 credit hours*

LA 6700-6. Advanced Landscape Architectural Design Studio V  
Electives-9.

*Spring Semester—15 credit hours*

LA 6750. Professional Practice  
LA 6701-6. Advanced Landscape Architectural Design Studio VI  
LA 6721-3. Regionalism  
Elective-3.

**Course Sequence** (48-hour MLA for students with a professional degree in landscape architecture or related disciplines).

This route requires 48 credit hours and typically two years of full-time study. The core curriculum consists of two groups: design, 30 credit hours; history and theory, 12 credit hours, for a total of 42 credit hours; plus 6 credit hours of electives. The program director will advise each student engaged in this program of study.

### Concentration Areas

The curriculum delivers required courses that enable students to learn and develop core themes of the profession inclusive of LAAB standards, with emphasis placed on studying the means to develop one's ideas, to convey one's values, and to criticize one's work. In addition, the curriculum offers four concentration areas from which to choose elective courses offered by the program and other units within the college and university in order to explore advanced topics, challenge normative paradigms, and develop new knowledge and capabilities. Majors from other areas are invited to enroll in landscape architecture electives.

#### Areas of Concentration

*Urban Design*

*Advanced Landscape Architectural Technologies*

*Landscape Planning and Management*

*History, Theory, and Criticism*

These broadly defined areas of concentration reflect topics and issues related to the program's location and context in Denver and its larger metropolitan and regional contexts. They also reflect faculty interests and resources available from within the college, university, and area. Students may pursue one or more concentrations within the required 24 elective hours, of which 18 are non-group related. Students are encouraged to consult with their assigned faculty advisor or other mentors as they make their decisions. (Note: 6 elective credit hours are to fulfill requirements in each of landscape architectural technologies and history and theory group.)

### Urban Design

Denver, the surrounding metropolitan areas, and the newly emerging urban areas within the greater region provide limitless issues, topics, and situations fueling interests in urban design. The field of urban design is complex and crosses many disciplines, including architecture, landscape architecture, urban planning, real estate development, law, engineering, and the social sciences. Students interested in this concentration are urged to seek and enroll in courses that provide:

- an analytical understanding of the urban/built environment
- the understanding and skills from which to develop, synthesize, create, and test responsive implementation strategies

Courses available to landscape architecture students include, but are not limited to:

CE 5622-3. Urban Transportation Planning  
 L A 6686-3. Special Topics: Open Space in Urban Design  
 L A 6930-3. Landscape Architecture Internship  
 (requires pre-approval by advisor/director)  
 SOC 4230-3. City and Region  
 U D 6620-3. Architecture of the City  
 U D 6621-3. The City as an Artifact  
 U D 6686-3. Special Topics in Urban Design  
 URP 5520-3. Urban Spatial Analysis  
 URP 6633-3. Urban Form Theory  
 URP 6634-3. Preservation Theory and Practice  
 URP 6635-3. History of American City Building  
 URP 6665-3. Urban Market Analysis  
 URP 6670-3. Urban Economic Development  
 URP 6676-3. Urban Housing

### Advanced Landscape Architectural Technologies

Many students will work within a variety of venues involving built works. Familiarity, competence, and interest in learning, using, evaluating, and developing existing and new technologies are compelling. These technologies include computer applications, design-build/learn by building, materials, and construction processes. Students interested in expanding their knowledge, skills, and future applications of technologies are encouraged to seek and enroll in courses that provide them with:

- significant exposure and facility with applied technologies
- appreciation for the value, strengths, weaknesses, and potential of the technologies to develop, implement, and evaluate their design works

Courses available to landscape architecture students include, but are not limited to:

ARCH 5310-3. Introduction to Building Technology  
 ARCH 6390-3. Special Topics in Technology  
 ARCH 6410-3. Computer Graphics  
 ARCH 6411-3. Computer Applications in Practice  
 L A 6641-3. Computer Applications in Landscape Architecture  
 L A 6686-3. Special Topics: Advanced Landscape Architectural Technologies  
 L A 6686-3. Special Topics: Computer Applications (VARIES)  
 L A 6930-3. Landscape Architecture Internship  
 URP 6612-3. GIS for Planners

### Landscape Planning and Management

Landscape planning is an area in which landscape architects play an increasing and vital role, particularly in this region, resulting from pressures to develop non-urbanized or undeveloped lands and to develop and manage public lands. Study within this concentration area addresses development and advancing knowledge and capability of the profession in:

- ecological systems
- urban and regional growth
- land use
- real estate development and finance
- environmental impact assessment
- planning and development processes

Courses available to landscape architecture students include, but are not limited to:

L A 6622-3. Visual Quality Analysis  
 L A 6641-3. Computer Applications in Landscape Architecture  
 L A 6930-3. Landscape Architecture Internship  
 URP 5530-3. Planning Law  
 URP 6612-3. GIS for Planners  
 URP 6640-3. Community Development Process  
 URP 6641-3. Social Planning  
 URP 6642-3. Neighborhood Planning  
 URP 6650-3. Environmental Planning II: Policy and Law  
 URP 6651-3. Environmental Impact Assessment  
 URP 6652-3. Growth Management  
 URP 6653-3. Natural Resource Management and Planning  
 URP 6660-3. Real Estate Development Process  
 URP 6661-3. Real Estate Development Finance  
 URP 6664-3. Fiscal Impact Analysis  
 URP 6671-3. Regional Economic Development  
 URP 6673-3. Transportation Planning I: Transport Network Analysis

### History, Theory, and Criticism

Advanced study in history, theory, and criticism of design is fundamental to the landscape architect's knowledge of the built environment, the intellectual forces that create it, and the theoretical construct of historic precedents in design influencing decisions.

Advancing knowledge and capability of the profession in this area of concentration is compelling and serves:

- to better inform designers eager to learn, generate, and develop ideas, and arrive at critical judgments about the worth of these ideas
- to enhance and inform one's perspective in a context of economic boom where new development is flourishing

Courses available to landscape architecture students include, but are not limited to:

ARCH 5230-3. History of Architecture II  
 ARCH 6161-3. Precedents in Architecture  
 ARCH 6210-3. History of American Architecture  
 ARCH 6212-3. History of Modern Architecture  
 ARCH 6220-3. History of Architectural Theory  
 ARCH 6221-3. Post-Structuralist Architecture  
 ARCH 6910-3. Teaching Assistantship  
 L A 6686-3. Special Topic: Architecture and the Landscape —  
 Exploration in Boundary  
 L A 6686-3. Special Topic: Contemporary Theories and Criticism of  
 Landscape Architecture  
 L A 6686-3. Special Topic: Landscape Architectural History  
 L A 6686-3. Special Topic: Modernism in Landscape Architecture  
 L A 6686-3. Special Topic: Open Space in Urban Design  
 L A 6686-3. Special Topic: Representations of Landscape Architecture  
 L A 6930-3. Landscape Architecture Internship

### Dual Degree Options

Students may enroll in a dual degree program with architecture (MLA and MArch), with MUD (MLA and MUD), or with MURP (MLA and MURP).

## Urban and Regional Planning

**Chair, Department of Planning and Design:** Fahriye Sancar,  
 303-556-3382

Urban and regional planners in the United States and other countries seek to identify social needs and environmental capacities, anticipate change and its impact on communities, shape the pattern of human settlements, provide essential infrastructure, maintain viable economies, and achieve and preserve sustainable communities that are suitably fit to their natural surroundings. Study in planning considers how social needs are legitimated, knowledge about communities and regions is compiled and analyzed, possible courses of action are evaluated, plans

are formulated, implementation is transacted through the means of education, investment, negotiation and regulation, and how plans' consequences are tracked over time.

These tasks require a high order of ability: to amass and manipulate information, to represent and model essential phenomena and processes, to simulate futures, and to judge outcomes having diverse dimensions. They also require the ability to portray and communicate key concepts, diagnoses, and actions, and to harness knowledge about all the key actors on the scene in order to understand their needs, motives, and possible responses to the public actions that plans provoke. Underlying these classes of abilities is a base of knowledge that easily overreaches the bounds of any one discipline.

Planners must understand theories regarding urban and regional process, concepts of presentation, communication and negotiation, technologies for the depiction and manipulation of spatial information, means by which to document, judge, and forecast change in urban systems, private economic motives and constraints, the behavioral inclinations of all the major classes of players on the urban scene, the mesh of laws that empower planning and govern private action, and the broader political economy of regional systems.

Needless to say, the education of planners can only begin in the university. It must be a life-long pursuit, and planning programs are becoming increasingly supportive of the continuing education needs of professionals. It is the intellectual excitement of this ongoing pursuit of knowledge that draws many to the field.

The Department of Planning and Design, along with the Department of Architecture, offers a bachelor of environmental design (BEnvd) degree on the Boulder campus. The Department of Planning and Design also offers the master of urban and regional planning (MURP) graduate degree on the downtown Denver campus. The master of urban and regional planning is fully accredited by the national Planning Accreditation Board, and prepares students for professional careers in planning and for further study.

For further details on the BEnvd, see the University of Colorado at Boulder catalog. Additional details about the master's program follow.

## THE MASTER OF URBAN AND REGIONAL PLANNING (MURP)

### Prerequisites

Students are expected to have achieved a basic level of computer literacy, and should be familiar with PC or Apple operating systems. A graphics workshop is recommended for students who do not have a background in drawing and model building.

### Program Requirements

The master of urban and regional planning is the college's accredited degree for students intending to practice as planners. With no advanced standing, candidates for the MURP degree must complete a minimum of 51 credit hours of graduate work, including all core courses (27 credit hours), a concentration (15 credit hours minimum), and additional electives (9 credit hours). Entering students who have engaged in the study or practice of planning elsewhere may petition the faculty during their initial semester to determine whether any credit will be awarded or degree requirements relaxed as a result of these prior activities. A maximum of 27 credits of course work can be applied for advanced standing.

Students who receive the college's bachelor of environmental design (BEnvd) degree on the Boulder campus and who have maintained a GPA of at least 3.0 will be admitted to the MURP with advanced standing. These students can earn the MURP degree after completing a minimum of 42 credit hours, which will include the core courses and an approved concentration. Students holding the college's BEnvd degree who also completed the undergraduate planning option with a GPA of at least 3.0 (and with a grade of at least 3.0 in ENVD 4320, Planning Studio III) will, in addition, receive a waiver with credit for URP 6630, Planning Studio I. These students will earn the MURP degree upon

completion of a minimum of 36 credit hours, including 21 credit hours of core courses and all requirements for an approved concentration. The above conditions for advanced standing apply only to students who graduated from the college's undergraduate program within the last five years. Those who graduated earlier may receive advanced standing at the discretion of the head of the graduate program in urban and regional planning, in consultation with program faculty.

### Core Courses

URP 5501-3. Planning Issues and Processes

URP 5510-3. Planning Methods I

URP 5511-3. Planning Methods II

URP 5520-3. Urban Spatial Analysis

URP 5530-3. Planning Law

URP 6630-6. Planning Studio I

URP 6631-6. Planning Studio II

A thesis option (URP 6950. Thesis Research and Programming, and URP 6951. Thesis) is available primarily for students who are interested in pursuing more advanced academic training in planning or related fields. Thesis work will substitute for Studio II.

### Areas of Concentration

The concentrations and elective courses enable students to explore in depth an area of special interest. Students should, however, build on the expertise that they already possess. This can be done either by focusing on a related specialty, or by increased specialization in a previously acquired area of expertise. The program supports three official concentrations: (1) land use and environmental planning, (2) urban place making and design, and (3) economic and community development planning. A set of foundation courses is identified in each concentration, plus additional supporting electives.

*Land Use and Environmental Planning* emphasizes regulation of land uses and land development processes; management of transportation, infrastructure and other major public investments; and management of urban ecology, environmental quality, and natural resources on both private and public lands. This concentration prepares students for planning and policy administration in urban neighborhoods, cities and counties, regions, open spaces, and resource management areas. The curriculum focuses on practices and innovations in land use regulation; analytical methods including transportation modeling, land market evaluation, environmental impact analysis, and use of decision support systems; administration of public policies and plans; management of negotiation and collaborative processes among diverse interest groups; and the politics of planning. Graduates take jobs in local, state and federal government, nonprofit organizations, consulting firms and the development industry.

*Urban Place Making and Design* emphasizes the interrelations between physical design, urban morphology, land-use regulations, and other forces such as market trends and regional policies shaping the urban environment and their impacts on quality of life. Curriculum focuses on providing the students with a special kind of expertise that combines design thinking and land-use planning within the dynamic context of city hall politics. The goal is to produce planners, working in the public or the private sector, who can effectively guide the physical form of urban development to serve the needs and desires of an increasingly diverse public while negotiating the realities and constraints of the real estate market and economic development goals of cities and communities. Graduates take jobs in local governments, nonprofit community organizations, consulting firms and the development industry.

*Economic and Community Development Planning* harnesses both the public and private sectors to fashion local economies able to support the essential needs of resident populations. The field of economic development features efforts to nurture, attract and retain firms that are suited to the fiscal, economic, and environmental requirements, capacities, and constraints of urban districts (e.g. neighborhoods, downtowns, industrial

districts and mixed-use spaces such as TODs and the like), entire municipalities both small and large and multi-local regions. Economic development also concerns the cultivation of both human and social capital as it seeks to encourage an appropriately skilled resident workforce able to find work in both local and regional labor markets.

The field of community development features development *from within*. It encompasses the many means for engaging local residents and institutions, fostering democratic participation, formulating developmental plans that address residents' most urgent needs, and drawing together all parties whose involvement is essential for success. Our program stands apart in its determination to (1) join together these two distinct fields, (2) situate the economy within its essential "built," social, and environmental rubrics, and (3) encourage a sufficiently broad, hence robust, conceptualization of the economy and its spatial and temporal development. This joint enterprise travels a continuum from smaller-scale project-based activities through strategic planning at the multi-local regional scale that has utility across the booms and busts of the regional business cycle.

Urban and community economic development specialists find work in localities, sub-state regions and state offices, as well as in quasi-public and private firms and institutions. They work with local residents, neighborhood and community organizations, community development corporations, various other nongovernmental organizations, consulting firms and, of course, in public agencies. For most, although hardly all such graduates, the primary career destination will be the local public sector. Those having this objective in mind should be aware that the bulk of such jobs will marry an appreciation of the rudiments of community economic development to some related physical planning specialty. Others seeking positions explicitly tied to the tasks of economic development are advised to consider opportunities at the municipal, state and federal levels—often set apart from offices devoted primarily to physical planning—with local and regional chambers of commerce, in the private development community, and in strategic institutional and corporate planning and development.

## Course Sequence

### FIRST YEAR

*Fall Semester (12 credit hours)*

URP 5501-3. Planning Issues and Processes  
URP 5510-3. Planning Methods I  
URP 5530-3. Planning Law  
Elective-3 credits.

*Spring Semester (12 credit hours)*

URP 5511-3. Planning Methods II  
URP 5520-3. Urban Spatial Analysis  
URP 6630-6. Planning Studio I\*

### SECOND YEAR

*Fall Semester (15 credit hours)*

Concentration Courses—9 credits  
Electives-6 credits.

*Spring Semester (12 credit hours)*

URP 6631-6. Planning Studio II\*  
Concentration Courses—6 credits

\* Both studios are offered in the fall *and* spring semesters.

## DUAL DEGREE OPTIONS

Students may also enroll in dual degree programs with public administration (MPA-MURP), law (JD), and business (MBA). In addition, dual degree options are also available combining the MURP with landscape architecture (MLA) and architecture (MArch).

Students may also take up to 6 credits of independent study, after first assembling a plan of study with one of the regular faculty. Up to 3 credits of internship may be applied to the 51-credit program.

## PhD in Design and Planning

**Program Director:** Willem Van Vliet, 303-492-5015

The Department of Architecture, the Department of Planning and Design, and the Department of Landscape Architecture share the idea that the complex problems of the built environment are best addressed through collaboration among the various design and planning disciplines, and through developing bodies of knowledge about the built environment. To further these ends, the departments and program jointly offer the advanced research degree, the PhD in design and planning.

The college's interdisciplinary doctoral program examines the complex factors that help shape the planned and constructed environment. The program offers three areas of specialization:

### 1. Land Use and Environmental Planning and Design

Work in this area focuses on purposeful intervention in the physical environment, including mechanisms and procedures such as land use controls, design review processes and standards, and environmental policies. It also deals with the planning and design of housing, neighborhoods, cities, regions, and the interrelationships among residential, economic, recreational, and transportation systems.

### 2. Design and Planning Processes and Practices

Work in this area focuses on the theory and methods of planning and design and the development of models and tools to understand and support decision processes and design practices. This area of specialization also includes the examination of practice-related issues such as the development of alternative and appropriate building technologies, energy-efficient designs, manufactured housing, and the design/build process.

### 3. History, Theory, and Criticism of the Environment

Work in this area involves critical analysis of architecture, urban design, landscape architecture, and planning, and of the theories, processes, and policies that have regulated these fields. Whether focusing on contemporary or past environments, the aim is to understand and explain them in relation to individual and cultural values, and in their cultural and technological contexts.

## Prerequisites

Applicants must hold at least a bachelor's degree, although most will have also completed a master's degree. Field specialization and background are open, and may include architecture, landscape architecture, architectural engineering, urban design, geography, urban economics, environmental law, urban sociology, real estate, management science, computer science, public administration, or environmental psychology. A successful applicant will have an undergraduate grade point average of at least 3.0 (out of a possible 4 points), and a graduate grade point average of 3.5 or better.

If students do not hold a professional or a pre-professional degree in a design or planning field, they will have to complete 12 hours of upper-level undergraduate course work in the College of Architecture and Planning. They will have to obtain in each of these courses a grade of *B* or higher. These courses are to be chosen from a selected list in consultation with the student's faculty advisor, and are to be completed within two years of admission to the program.

A student must have completed 12 hours in an undergraduate program in **one** of the following prerequisites. The one that applies will depend upon the student's intended area of specialization. In exceptional cases, a student may complete this requirement by taking additional undergraduate courses and gaining a grade of *B* or higher in each course. The courses are to be chosen from a selected list in consultation with the student's faculty advisor, and are to be completed within two years of

admission to the program. They may count toward fulfilling the degree requirements.

- social and behavioral sciences
- environmental and natural sciences
- engineering
- humanities

A student must also have completed **one** of the following prerequisites. The one that applies will depend upon the student's intended area of specialization. In exceptional cases, a student may complete this requirement by taking additional undergraduate courses and gaining a grade of *B* or higher in each of these courses. The courses are to be chosen from a selected list in consultation with the student's faculty advisor, and are to be completed within two years of admission to the program. They may count toward fulfilling the degree requirements.

- *Statistics*. Including probability theory, parametric and nonparametric methods, and acquaintance with basic multivariate techniques. A minimum of 3 hours.
- *Mathematics*. Including differential equations, finite mathematics, algebra data structures, or other appropriate courses. A minimum of 3 hours.
- *Language*. Ability to read at least one foreign language relevant to the intended dissertation.
- *Computer*. Background in computer-aided design (CAD) or geographic information systems (GIS). A minimum of 3 hours.

The applicability of a student's prior course work will be decided by the graduate studies committee upon review of a student's transcript and additional materials. If the student does not have the requisite educational background, grade point average, or GRE scores, the student may be admitted on a conditional or provisional basis, and additional course work may be required in accordance with Graduate School rules.

### Program Requirements

The PhD requires 76 credit hours. Up to 18 transfer credits may be approved for students admitted with a master's degree. Students in the program will also have to meet the academic residency requirement, which requires six semesters of scholarly work beyond the attainment of an acceptable bachelor's degree. Two semesters of residence credit may be allowed for a master's degree from another institution of approved standing. However, at least four semesters of resident credit, two of which must be consecutive in one academic year, must be earned for work taken at this university. Completion of the program therefore takes three or four years, depending on prior course work.

The PhD program has five components: (1) core curriculum, (2) research specialization, (3) minor field of study, (4) electives, and (5) dissertation. The **core** of 10 hours consists of seminars and colloquia on the theories and research methods in the fields of design and planning. All students, no matter what their specialization, must take the core in the first two years of their residence. For the **research specialization**, each student must take at least 12 hours of course work in one of the program's three specialization areas: land use and environmental planning and design; design and planning processes and practices; and history, theory, and criticism of the built environment. One of the courses must be an advanced methods class. The **minor field of study** provides students with a strong background that supports their chosen research emphasis. It requires completion of at least 12 hours of related course work that provides in-depth knowledge in a relevant area. **Elective** course work consists of 12 hours of additional study in areas related to the dissertation topic. For the research specialization, the minor field of study, and the electives, students develop an individualized course of study to reflect their specific foci and career aspirations. The required course work is determined jointly by the student, the faculty advisor, and committee members. The **dissertation** requires 30 hours of course work. Students are expected to define a research question in planning and design, to identify the research strategy to be used for answering this question, to conduct the research, and to write up the project in the form of a dissertation. A student is guided in this process by a dissertation advisor, and by the additional members who compose the student's dissertation committee.

Students must register for a minimum of 5 dissertation credits each semester of their dissertation work. If unable to register for at least 5 credits, they must request a leave of absence from the PhD program until able to complete the minimum dissertation requirement. Students may take up to a year's leave of absence before they are disenrolled from the program.

### Evaluations and Examinations

Successful candidates for the PhD in design and planning pass four points of evaluation: (1) preliminary exam, (2) comprehensive exam, (3) doctoral dissertation, and (4) final exam. By the end of the first semester of residence, the student devises a degree plan, which is approved by the graduate studies committee. A **preliminary exam** then evaluates the student's initial progress through the program. The **comprehensive exam** is an examination based on papers prepared by the candidate that survey the literature of the field and that set out a proposed dissertation. This exam takes place after two semesters of residency, and before the student becomes a candidate for the PhD degree.

After advancement to candidacy, the student prepares a **doctoral dissertation**, which offers original research in the student's chosen field. When the college's dissertation committee approves the final dissertation submission, it conducts a **final exam** based on the student's research. This exam is open to the public.

### Course Sequence

#### FIRST YEAR

Students develop their degree plan, take 5 semester hours of the required core curriculum, take additional courses in their specialty area, make up any prerequisite courses, and take the preliminary exam.

#### SECOND YEAR

Students take the remaining core courses, continue to take electives in their minor and specialty areas, begin literature surveys, and prepare for their comprehensive exam.

#### THIRD AND FOURTH YEAR

Students complete their literature surveys, prepare a dissertation proposal, and take the comprehensive exam. After completion of the comprehensive exam, the rest of the third and fourth years is spent researching and writing the dissertation. Once the dissertation has been accepted, students take the final exam.

## Master of Urban Design

**Program Information:** Hans Morgenthaler, 303-556-4227

The master of urban design is an interdisciplinary advanced degree program in which students articulate issues that integrate the fields of architecture, landscape architecture, urban planning, transportation, real estate, and political affairs. The mission is to address the total realm of urbanization through research, collaboration and leadership development within the inclusive public domain. The program makes full use of its setting in the core of downtown Denver, and explores the evolving environments of settlements, villages, towns, cities, metropolises, and megalopolises in Colorado as wide ranging planning laboratories for the studio-based projects or thesis studies. The urban design problem-solving opportunities are further enhanced by the extensive public-private connections the college has established throughout a rapidly growing state.

There are three general plans of study: 1) a 30-credit-hour program for students who have received a five- or six-year professional degree in architecture, landscape architecture, or planning (i.e. BArch, MArch, MLA, MURP); 2) for international students, a four-year accredited professional degree and other accepted qualifications would permit entry into a modified one-calendar-year long program that requires 39 credit hours for graduation; 3) a 66-credit-hour program, including 6 hours of summer internship, is also available for students who hold a pre-professional (non-accredited design) degree; 4) for students from all other undergraduate

degree programs, a customized three-year curriculum of 96 credit hours is required including an internship component of 6 credit hours during one summer. In all cases fall semester is the preferred entry time.

The emphasis of the urban design degree focuses on three primary concerns that affect both horizontal and vertical developments in tactical and strategic timeframes:

- I. history and theory of urbanization in the inclusive public domain
- II. systems and processes used in the making of the urbanized public domain
- III. designing the urban public domain

The ultimate goal of the program is to educate students to be effective in the public domain as problem originators, venture designers, idea linkers, and decision makers. These urban design degree graduates through creative problem solving, management, advocacy, and implementation can achieve outstanding ends in the professional, public, and development process.

### Course Sequence

(30 credit hours with professional degrees)

#### Semester One (15 credit hours)

- I. History, Theory  
URP 6633 -3. Urban Form Theory
- II. Systems, Processes  
URP 6651-3. Environmental Impact Assessment  
URP 6660-3. Real Estate Development Process
- III. Design\*  
U D 6600-6. Transformation Decomposition Studio  
(integrated team-taught course)

#### Semester Two (15 credit hours)

- I. History, Theory  
Elective 3-6. History, Theory Selected List
- II. Systems, Processes  
U D 6686-3. ST: Urban Design Seminar  
Elective-3. Systems, Processes Selected List
- III. Design\*  
U D 6601-6. Composition Studio

#### \*Summer Options

- a) Complete thesis commitment begun in semester one with prior approval of subject and three-semester sequence of (1) thesis prep, (2) research and conceptual stages, (3) final documentation completion. This selected thesis sequence is an adjustment of the one-year or the last-year course progression. After the advisor and student have agreement on the thesis subject, the study sequence is then modified.

First semester (third or fifth semester):

Substitute thesis prep and an integrated thesis seminar course for the design course.

Second semester (fourth or sixth semester):

The studio content combines thesis research transitioning into concept-schematic design scenarios.

Summer semester is a combination of interrelated independent study and thesis studio conclusion courses.

*Note:* To pursue the thesis option, written and phone subject proposals must be completed with the advisor before enrollment.

- b) Skip spring selected elective (6 hours) for overseas study (6 hours)
- c) Summer internships and/or third studio

### Course Sequence

(66 credit hours with only pre-professional degrees)

#### Semester One (15 credit hours)

- I. History, Theory  
URP 6633-3. Urban Form Theory
- II. Systems, Processes  
L A 6632-3. Site Planning  
URP 6651-3. Environmental Impact Assessment
- III. Design  
URP 6630-6. Planning Studio I

#### Semester Two (15 credit hours)

- I. History, Theory  
ARCH 6220-3. History of Architectural Theory  
L A 6620-3. LA Theory and Criticism
- II. Systems, Processes  
L A 5572-3. Landscape Ecology
- III. Design  
URP 6631-3. Planning Studio II

#### Semester Three (summer, 6 credit hours)

- II. Systems, Processes  
U D 6840-6. Independent Study  
(internship or overseas study for 6 hours)

#### Semester Four (15 credit hours)

- I. History, Theory  
URP 6670-3. Urban Economic Development
- II. Systems Processes  
U D 6686-3. ST: Urban Design Seminar  
URP 6660-3. Real Estate Development Process
- III. Design\*  
U D 6600-6. Transformation/Decomposition Studio  
(integrated team-taught course)

#### Semester Five (15 credit hours)

- I. History, Theory  
Electives 3-6. History, Theory Selected List
- II. Systems, Processes  
Electives 3-6. Systems, Processes Selected List
- III. Design\*  
U D 6601-6. Composition Studio

\* see one-year summer options above

### Selected Electives

#### Recommended

History, Theory (I)

- ARCH 5220-3. History of Architecture I
- ARCH 5230-3. History of Architecture II
- ARCH 6220-3. History of Architectural Theory
- ENVD 4233-3. Environmental Aesthetics
- L A 5521-3. History of Landscape Architecture
- L A 6620-3. LA Theory and Criticism
- URP 6635-3. History of American City Building

System, Processes (II)

- L A 5572-3. Landscape Ecology
- L A 6632-3. Site Planning
- URP 5530-3. Planning Law
- URP 6661-3. Real Estate Development and Finance
- URP 6673-3. Transportation Planning I:  
Transport Network Analysis
- URP 6686-3. ST: Design Review

*Suggested*

History, Theory (I)

- ARCH 6161-3. Precedents in Architecture
- L A 6686-3. Special Topics in LA
- URP 6670-3. Urban Economic Development

System, Processes (II)

- ARCH 5240-3. Human Factors in Design
- ARCH 6410-3. Computer Graphics
- L A 6686-3. Special Topics in LA
- URP 6612-3. Geographic Information Systems for Planners
- URP 6664-3. Fiscal Impact Analysis
- URP 6665-3. Urban Market Analysis
- URP 6674-3. Transportation Planning II:  
Urban Transportation Planning

### Graduate Certificate in Historic Preservation

The College of Architecture and Planning together with the Department of History in the College of Liberal Arts and Sciences offers a graduate certificate in historic preservation. The certificate can be earned as part of an MArch, MLA, MURP, or an MA in history. It requires a total of 18 credit hours.

Two preservation courses are required:

- HIST 5232. Historic Preservation
- URP 6634-3. Preservation Theory and Practice

These are core courses on preservation theory and practice from the architect and planner's perspective of intervening through design and regulation and from the historian's perspective of how the past might guide the future.

A thesis or studio (6 cr.) is required.

Students choose their remaining courses from a selection in the following categories:

- History of Architecture, Landscape Architecture, or Historic Places (3 cr.)
- Preservation Methods (3 cr.), including Preservation Technology, Documentation of Sites and Structures, Visual Research Methods, and other subjects

Students are encouraged but not required to take an internship in preservation.

Preservation certificate students work out with their advisor a selection of courses appropriate to their needs and the requirements of their degree program. For more information, contact Associate Professor Michael Holleran (303-556-3688, michael.holleran@cudenver.edu) in the College of Architecture and Planning, or Professor Tom Noel in the history department (303-556-4830, tom.noel@cudenver.edu).

### Graduate Certificate in Design Build

The College of Architecture and Planning offers a graduate certificate in the emerging area of design build as an extension of the MArch program. It requires a total of 15 credit hours, some of which also count toward the MArch program, some of which do not. Course work in this extension emphasizes the designer's point of view.

Four courses totaling 15 credit hours can be applied to the MArch graduation requirements: ARCH 6370. Introduction to Design Build, ARCH 6371. Maintaining Quality, Managing Risk, ARCH 6373. Construction in Single Source Project Delivery, and ARCH 6170. Advanced Design Build Studio.