## Programs

Click on any of the following programs for more information:

## Undergraduate Areas of Study

## 3D Graphics and Animation Emphasis, Fine Arts BFA

## Introduction

Please click here to see general Visual Arts information.
The 3D graphics and animation emphasis is a competitive and rigorous four-year curriculum focused on preparing students to work in a wide variety of fields that use animated digital computer graphics (CG), including entertainment, film and television, gaming, medicine, and science.

## Program Delivery

- This is an on-campus program.
- The 3D graphics and animation emphasis courses (DACD 2810-4820 below) are billed at a different rate than the standard course tuition due to the state-of-the-art technology used in the classroom. For more information regarding this rate, contact the College of Arts \& Media at CAM@ucdenver.edu.


## Declaring This Major

- Click here to go to information about declaring a major.
- Students who are applying for entrance into the 3D graphics and animation emphasis must submit a portfolio, as described below. The 3D graphics and animation emphasis accepts applications only once per year. Students who meet the requirements and are accepted will be able to register for advanced 3D animation courses.


## ELIGIBILITY

Students are eligible to apply to the 3D graphics and animation emphasis after completing the following courses with a grade of $\mathrm{C}(2.0)$ or better each and a minimum overall animation course GPA of 2.8:

- FINE 1810 - PREDAC: 3D Foundations (offered fall)
- FINE 1820 - PREDAC: Animation Foundations (offered spring)

Please note that FINE 1810 and FINE 1820 are billed at regular tuition rates.

## PORTFOLIO APPLICATION REQUIREMENTS

The student's application must be submitted electronically no later than the last Friday of May. Detailed Instructions are provided in FINE 1820 Animation Foundations. Selection for entrance into the 3D graphics and animation emphasis is a competitive process (by faculty review) that requires:

- Submission by the candidate of a "Portfolio Demo Reel". The reel must include original works from FINE 1810 3D Foundations and FINE 1820 Animation Foundations as well as representative works created in other visual arts courses completed during the first year of the program. The Portfolio Demo Reel must be turned in as a .mov (Quicktime, H.264, 1280x720 minimum frame size, 16:9 aspect ratio). Still work should be a component of the reel and should be on screen for at least 3 seconds but no more than 10 seconds. Name and contact information should appear at the beginning and end of the reel. The reel should not be greater in length than 3.5 minutes.
- A "breakdown sheet": the run time at which the work occurs and which describes what work is included on the submission reel, and, if collaborative in nature, what aspect of the work shown was created by the applicant. Turn in .pdf only please.
- A one page double-spaced written statement regarding the applicant's aspirations as a productive and contributing member of the 3D graphics and animation cohort and the CG community as a whole. Turn in .pdf only please.
Students should show only their best work and show the very best work first. Students should be selective since reels may only be 3.5 minutes long. Music is not recommended for professional reels, but if music is used, students should choose wisely.

For more portfolio information, please see the College of Arts \& Media 3D graphics and animation website and the Digital Animation Center website, or contact the College of Arts \& Media at CAM@ucdenver.edu

## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Arts \& Media Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minimum of $\mathrm{C}(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C - (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
2. All upper-division visual arts courses must be taken at CU Denver unless approved otherwise by Department of Visual Arts faculty.
3. At least 27 semester hours of visual arts credits (at any level) must be taken at CU Denver.
4. At least 24 semester hours of total visual arts courses must be upper-division.

Take all of the following Pre-Portfolio courses:

- FINE 1810 - PREDAC: 3D Foundations
- FINE 1820 - PREDAC: Animation Foundations

Take all of the following 3D Graphics and Animation Emphasis courses (available only to students accepted to emphasis via portfolio review):

- DACD 2810 - DAC: Surface Modeling
- DACD 2820 - DAC: Texturing and Shading
- DACD 2830 - DAC: Lighting and Rendering
- DACD 2850 - DAC: Character Creation
- DACD 2822 - DAC: Digital Cinematography
- DACD 3810 - DAC: Environment Production
- Either DACD 3820 - DAC: Character Rigging \& Animation I or DACD 3821 - DAC: VFX Rigging \& Animation I or DACD 3850 - DAC: Dynamic Simulation
- Either DACD 3830 - DAC: Character Rigging \& Animation II or DACD 3831 - DAC: VFX Rigging \& Animation II or DACD 3835 - DAC: Visual Effects Note: Students who selected DACD 3820 must follow it with DACD 3830; students who selected DACD 3821 must follow it with DACD 3831; students who selected DACD 3850 must follow it with DACD 3835.
- Either DACD 3845 - DAC: Preproduction for Story or DACD 3846 - DAC: Preproduction for Look Dev
- DACD 4810 - DAC: Production I
- DACD 4820 - DAC: Production II

Take all of the following courses:

- ENGL 2250 - Introduction to Film
- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2155 - Introduction to Digital Photography
- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II
- FINE 4990 - Contemporary Art: 1960 to Present

Take one of the following Visual Arts courses:

- FINE 3814 - Digital 3D Methods: Motion Graphics for Animators
- FINE 3815 - Storyboarding for Cinema and Game Previsualization
- FINE 4825 - Architectural Visualization

Take three semester hours of Pre-20th Century Art History elective.

Take twelve semester hours of Visual Arts electives. These may include studio, lecture, internship or art history courses.

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for lists of approved electives and more information about this emphasis.

## Accounting Major - BS in Business Administration

## Introduction

Please click here to see Business School information.
Accounting courses are offered in several fields of professional accountancy at the intermediate, advanced and graduate levels. They provide preparation for practice in one or more of the following fields:

- Public Accounting: auditing, consulting, and tax compliance and planning
- Accounting in Industry: all industries, including energy, financial, manufacturing, retail
- Accounting in Government and Nonprofits
- Academics: teaching and research in accounting areas of financial reporting, managerial accounting, auditing, accounting information systems, and taxation
In all of these fields a thorough knowledge of the social, legal, economic and political environment is needed. A high degree of analytical ability and communication skill is indispensable.

Courses in English composition, speech, ethics and logic are desirable. Courses in statistics and information systems, beyond the required business core courses, are highly recommended.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a 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
- Business School Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A grade of C or higher must be earned in all courses that are used as prerequisites. These are noted with an asterisk.
Take all of the following required courses:

- ACCT 3220 - Intermediate Financial Accounting I *
- ACCT 3230 - Intermediate Financial Accounting II *
- ACCT 3320 - Intermediate Cost Accounting *
- ACCT 4054 - Accounting Systems and Data Processing * (Replaces ISMG 3000 in Business Core)
- ACCT 4410 - Income Tax Accounting
- ACCT 4620 - Auditing Theory

Take one of the following courses:

- ACCT 4240 - Advanced Financial Accounting
- ACCT 4520 - Oil and Gas Accounting
- ACCT 4800-Accounting for Government and Nonprofit Organizations
- ACCT 4840 - Independent Study
- Or any other 4000-level ACCT course


## Notes

- Students also have the option to complete an Accounting major with a specialization in Information Systems. Click here to view this option.
- Students also have the opportunity to continue their education with an MS in Accounting. The Accounting $4+1$ program allows students to potentially complete the BS and MS degrees in as little as five years through substituting two graduate courses for two undergraduate courses. The graduate courses count towards both the BS and MS degrees.

If you are considering this $4+1$ program, contact your advisor immediately so that you can appropriately plan your coursework. Email undergrad.advising@ucdenver.edu

## Accounting Major - BS in Business Administration with specialization in Information Systems

## Introduction

Please click here to see Business School information.
Accounting courses are offered in several fields of professional accountancy at the intermediate, advanced and graduate levels. They provide preparation for practice in one or more of the following fields:

- Public Accounting: auditing, consulting, and tax compliance and planning
- Accounting in Industry: all industries, including energy, financial, manufacturing, retail
- Accounting in Government and Nonprofits
- Academics: teaching and research in accounting areas of financial reporting, managerial accounting, auditing, accounting information systems, and taxation
In all of these fields a thorough knowledge of the social, legal, economic and political environment is needed. A high degree of analytical ability and communication skill is indispensable.

Courses in English composition, speech, ethics and logic are desirable. Courses in statistics and information systems, beyond the required business core courses, are highly recommended.

Within the Accounting curriculum students can specialize in Information Systems to compliment their individual interest.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a 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 Requirements
- Business School Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A grade of C must be earned in all accounting courses that are used as prerequisites. These are noted with an asterisk.
Take all of the following courses:

- ACCT 3220 - Intermediate Financial Accounting I *
- ACCT 3230 - Intermediate Financial Accounting II *
- ACCT 3320 - Intermediate Cost Accounting *
- ACCT 4054 - Accounting Systems and Data Processing * (Replaces ISMG 3000 in Business Core)
- ACCT 4410 - Income Tax Accounting
- ACCT 4620 - Auditing Theory
- ISMG 4780 - Accounting and Information Systems Processes and Controls
- and choose two upper division ISMG electives


## Notes

Students also have the opportunity to continue their education with an MS in Accounting. The Accounting 4+1 program allows students to potentially complete the BS and MS degrees in as little as five years through substituting two graduate courses for two undergraduate courses. The graduate courses count towards both the BS and MS degrees.

If you are considering this $4+1$ program, contact your advisor immediately so that you can appropriately plan your coursework. Email undergrad.advising@ucdenver.edu

## Anthropology BA

## Introduction

Please click here to see Anthropology department information.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. Majors must complete a minimum of 40 semester hours in Anthropology with a grade of $\mathrm{C}(2.0)$ or better in each course.
2. At least 24 hours must be at the upper-division level.
3. A minimum of 21 semester hours must be taken from CU Denver faculty.
4. Note: Most upper division courses have lower division pre-requisites.

Take all of the following required courses:

- ANTH 1302 - Introduction to Archaeology
- ANTH 1303 - Introduction to Biological Anthropology
- ANTH 2102 - Culture and the Human Experience

Take three of the following courses:

- ANTH 3101 - Foundations of Cultural Anthropology
- ANTH 3121 - Language, Culture, and Communication
- ANTH 3301 - World Prehistory
- ANTH 3512 - Human Evolution

Take $\mathbf{2 0}$ elective credit hours from the Anthropology Department.

## Architecture BS

## Introduction

Please click here to see Architecture department information.
The College of Architecture and Planning offers a Bachelor of Science in Architecture degree exclusively on the downtown Denver campus. The city of Denver provides a rich environment to explore a diverse historic and cultural world that includes multiple approaches to solving urban and building problems. The degree is a "pre-professional" degree, which will provide fast track entry into the accredited Master of Architecture degree that is required for licensure in the profession. This degree provides an education in the sciences and humanities in design theory of the built world and its practice. Our graduates will have significant grounding in the science of building and the practice of architecture in a rapidly evolving profession. Our educational goal is to engender active and creative making of architecture along with critical thinking skills. Our graduates will have employment options in entry level architectural practices or related fields of urban design, historic preservation, design-build, construction, and even urban planning; or the opportunity to enter any accredited graduate program in the country.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Architecture and Planning Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must earn at least a C- grade in required architecture and math courses. Architecture and math courses must be repeated if the student earns less than a C-grade.
Take all of the following required Design Studies courses:

- ARCH 2110 - Design Studio I
- ARCH 3110 - Design Studio II
- ARCH 3120 - Design Studio III
- ARCH 4110 - Design Studio IV
- ARCH 4120 - Design Studio V

Take all of the following Cultural Studies courses:

- ARCH 1110 - Introduction to Architecture
- ARCH 2230 - Architectural History I
- ARCH 3230 - Architectural History II

Take all of the following Technical Studies courses:

- ARCH 3130-Construction Practices I
- ARCH 3430 - Construction Practices II
- ARCH 3330 - Building Systems I
- ARCH 4440 - Building Systems II
- ARCH 3340 - Theory of Structures I
- ARCH 4340 - Theory of Structures II

Take one of the following Math courses/sets:

- MATH 1110 - College Algebra and
- MATH 1120 - College Trigonometry or
- MATH 1130 - Precalculus Mathematics
- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 2421 - Calculus III

Note: also applies to the Core Math requirement

Take both of the following Physics courses:

- PHYS 2010 - College Physics I
- PHYS 2030 - College Physics Lab I

Note: also applies to the Core Biological and Physical Sciences requirement

Take eighteen hours of Architecture electives.

Additional General elective hours may be needed to reach the required 120 hours for the BS Architecture degree.
Note: Required math and physics courses may apply toward General electives if not already applied toward Core Math and Biological and Physical Sciences requirements.

## Art History Emphasis, Fine Arts BA

## Introduction

Please click here to see general Visual Arts information.
The art history emphasis familiarizes students with a range of developments in the history of art while developing skills in critical thinking, writing, research and the study of artworks. After an introduction to the canonical traditions of art and architecture, students take advanced lecture courses on specific subjects. This
curriculum concludes with capstone seminars on the methods of art historical scholarship as well as a thesis project.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.
- Consult the College of Arts \& Media at CAM@ucdenver.edu for more information.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Arts \& Media Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minimum grade of $\mathrm{C}(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C- (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
2. All upper-division visual arts courses must be taken at CU Denver unless approved otherwise by Department of Visual Arts faculty.
3. At least 21 semester hours of all visual arts credits (at any level) must be taken at CU Denver.
4. At least 18 semester hours of total visual arts courses must be upper-division.

Take all of the following Studio Arts courses:

- FINE $\qquad$ 2-dimensional Studio Arts course (3 semester hours)
- FINE $\qquad$ 3-dimensional Studio Arts course (3 semester hours)
- FINE $\qquad$ Studio Arts Elective (3 semester hours)

Take one of the following English courses:

- ENGL 2070 - Grammar, Rhetoric and Style
- ENGL 4180 - Argumentation and Logic
- ENGL 4280 - Proposal and Grant Writing

Take all of the following Art History courses (entry level):

- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II

Take a minimum of three semester hours of Pre-20th Century Art History elective.

Take an additional eighteen semester hours of upper-division (3000/4000-level) Art History electives (six courses).
Take all of the following Art History Capstone courses:

- FINE 4790 - Methods in Art History
- FINE 4951 - Bachelor of Art Thesis

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for lists of approved studio arts courses and art history electives, as well as more information about this emphasis.

## Art Practices Emphasis, Fine Arts BFA

## Introduction

Please click here to see general Visual Arts information.
The emphasis in art practices provides students with a comprehensive education in visual art practices, applications, contemporary theories and art history, with a focus on current trends in contemporary art. This program forges tangible connections between digital media, the photographic image in context, three-dimensional object-making, painterly and hand-drawn processes, as well as interactive social practice woven together with the formation and understanding of critical contemporary artistic dialogue. This emphasis is designed to provide students with greater knowledge and tools to make them competitive in the professional world of contemporary art.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.
- Students who are applying for entrance into the art practices emphasis must submit a portfolio, as described below. The art practices emphasis accepts applications twice a year. Students who meet the requirements and are accepted go on to register for upper-division art practices courses.


## ELIGIBILITY

## University of Colorado Denver Students

The student has completed, or is in the process of completing, the following courses:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2155 - Introduction to Digital Photography
- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II

A minimum cumulative fine arts/art history GPA of 2.75

## Transfer Students

The student has completed and is transferring a minimum of 24 credit hours from a previous institution.
Student has completed, or is in the process of completing, the equivalents of the following courses:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2600 - Art History Survey I

A minimum cumulative fine arts/art history GPA of 2.75

## PORTFOLIO APPLICATION REQUIREMENTS

Students applying to the art practices emphasis submit a portfolio of 10 images in digital format, a written statement and unofficial transcript(s) from CU Denver and all previous post-secondary educational institutions. Application materials must be uploaded to SlideRoom.com by November 1 or April 1 at 5:00 pm (Mountain
Time). Applications are only accepted online and must be formatted to the specifications listed below. There is a $\$ 30$ fee to apply.

## Portfolio of Images

The portfolio must include a minimum of 10 digital images of creative work (but no more than 15). Submit six or more images of artworks done in FINE 1100 Drawing I, FINE 1400 Two-Dimensional Design, and FINE 1500 Three-Dimensional Design. Additional examples (up to five) may include design, drawing, painting, sculpture, photography, mixed media, installation and/or printmaking.

All images should be formatted as JPEGs. Limit file size to 1 megabyte. File names must be numbered, include the student's last name, and then an underscore and a brief title.

## File Name Examples:

- 1_lastname_figuredrawing.jpeg
- 2_lastname_still-lifedrawing.jpeg

Note: For each image uploaded to SlideRoom, the applicant must provide the following information: title, year, media and size, the name of the course for which it was created (if applicable) and a brief explanation of the artwork.

## Written Statement

A written statement must be uploaded as a PDF file with the portfolio on SlideRoom. In the essay, the student should address the following questions in no more than one page in length (400-500 words).

- Why do you want to study art practices and what goals and expectations do you have regarding a career as a studio artist?
- What are your creative strengths, and what areas need further development?
- What other accomplishments would you like the committee to know about, such as Dean's List, GPA, internships, art-related extracurricular activities or relevant professional experience?


## Course Transcripts

These may be official or unofficial transcripts from CU Denver and previous post-secondary institutions. The CU Denver transcript must show any current semester courses.

## THE EVALUATION PROCESS

- A committee of studio art faculty members reviews the application materials. Acceptance into the art practices emphasis is based on the portfolio images, written statement and GPA.
- If not admitted into the art practices emphasis, a student has the choice of attempting the review process again in a later semester or applying to another emphasis. Students are encouraged to schedule a meeting with a studio art faculty member to learn ways to improve their portfolios for future submissions.


## The application is evaluated on the following criteria:

- Presentation - The portfolio should be well-crafted and well organized in content and presentation.
- Technical Skill - The portfolio should demonstrate strong proficiency in drawing, composition and design (2D and/or 3D).
- Creativity - The portfolio should demonstrate creative choices in content and aesthetics.
- Conceptual Skills - The portfolio and written statements should reflect analytical thinking and conceptual exploration of the foundations of art.
- Written Statement - The statement should outline academic and artistic goals, addressing any potential strengths and weaknesses.
- Academic Performance - The grades must reflect a commitment to learning and growth.
- Completeness of Application - All required documentation must be submitted (images, written statement and transcripts).


## QUESTIONS

For more portfolio information, please contact CAM@ucdenver.edu or Melissa Furness at melissa.furness@ucdenver.edu, Carol Golemboski at carol.golemboski@ucdenver.edu, or Rian Kerrane at rian.kerrane@ucdenver.edu.

## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Arts \& Media Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minimum grade of $\mathrm{C}(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C - (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
2. All upper-division visual arts courses must be taken at CU Denver unless approved otherwise by Department of Visual Arts faculty.
3. At least 27 semester hours of visual arts credits (at any level) must be taken at CU Denver.
4. At least 24 semester hours of total visual arts courses must be upper-division.

Take all of the following Pre-Portfolio courses:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2155 - Introduction to Digital Photography
- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II

Note: Students must pass the portfolio review and be accepted into the art practices emphasis before continuing with upper-division (3000/4000-level) emphasis courses. Any lower-division course may be taken prior to portfolio review.

Take all of the Main Studio Concentration courses from ONE of the following categories (Transmedia Sculpture or Painting and Drawing):

## Transmedia Sculpture

- FINE 2500 - Bronze Casting
- FINE 2510 - Wood and Metal Sculpture
- FINE 3510 - Mold Design \& Casting
- FINE 3525 - Modeling for Manufacture
- FINE 3505 - Environmental Art
- Either FINE 3530 - Electronic Art or FINE 4500 - Electronic Performance
- FINE 4505 - Sculptural Rendering


## Painting and Drawing

- FINE 2200 - Painting I
- FINE 3030 - The Media of Drawing
- FINE 3200 - Intermediate Painting and Drawing
- FINE 3300 - Painting, Drawing and the Printed Image
- FINE 4100 - Painting \& Drawing Theory \& Practice
- FINE 4200 - Advanced Painting and Drawing I
- FINE 4210 - Advanced Painting/Drawing II

Take all of the Secondary Studio Concentration courses from ONE of the following categories (Transmedia Sculpture or Painting and Drawing or Photography). Note that the Secondary Concentration must be different from the Main Concentration.

Transmedia Sculpture

- FINE 2500 - Bronze Casting
- FINE 2510 - Wood and Metal Sculpture
- FINE 3510 - Mold Design \& Casting
- FINE 3525 - Modeling for Manufacture
- Either FINE 3530 - Electronic Art or FINE 4500 - Electronic Performance

Painting and Drawing

- FINE 2200 - Painting I
- FINE 3030 - The Media of Drawing
- FINE 3200 - Intermediate Painting and Drawing
- FINE 4100 - Painting \& Drawing Theory \& Practice
- FINE 4200 - Advanced Painting and Drawing I

Photography

- FINE 1150 - Introduction to Darkroom Photography
- FINE 3115 - Mixed Media and Photography
- FINE 3125 - Digital Image and Print
- FINE 3156 - Photography Studio and Lighting
- FINE 3160 - Color and the Constructed Image

Take all of the following Visual Arts courses:

- FINE 3405 - Introduction to Digital Video
- FINE 3500 - Installation Art
- FINE 4990 - Contemporary Art: 1960 to Present

Take three semester hours of Pre-20th Century Art History elective.

Take three semester hours of upper-division Art History elective.

Take nine semester hours of Visual Arts electives. These may include studio, lecture, internship or art history courses.

Take the following Capstone course:

- FINE 4950 - Studio BFA Thesis

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for lists of approved electives and more information about this emphasis.

## Bioengineering BS

## Introduction

Please click here to see Bioengineering department information.
The undergraduate program at CU Denver is a highly rigorous program instilling competencies in biomedical science, engineering, and mathematics and biomedical design, while emphasizing the professional competencies of leadership, communication, presentation and critical problem solving. Our mission is to improve human health through the application of engineering principles, ideas, methods and inventions to solve important clinical problems. Bioengineering is a highly interdisciplinary field that brings together: (1) biological, chemical and physical sciences; (2) engineering and mathematics; and (3) clinical medicine. The undergraduate bioengineering program provides training at both the Denver campus and the Anschutz Medical Campus.

Graduates will be well prepared for further education in graduate school, medical school industry or other advanced professional preparation. The department also offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in bioengineering.

## Program Delivery

- This is an on-campus program.
- Upper-division major courses will be taught at the Anschutz Medical Campus.


## Declaring This Major

- Click here to go to information about declaring a major.
- Students applying to the program must select bioengineering (pre-major) as their "Field of Study" in the online application. If you are admitted to the pre-major program you will enroll in pre-major courses, which are offered at the Denver campus. Students in the pre-major must apply to advance to major status in bioengineering. Admittance to the major in bioengineering will be granted to students who have successfully completed all pre-major courses and who meet the program's selection criteria. Upper-division courses will be taught at the Anschutz Medical Campus.


## General Requirements

To earn a 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 Engineering \& Applied Science Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

The bioengineering major requirements include three different types of courses: pre-major courses, upper-division bioengineering courses and track electives.

## Pre-Major Courses

Students must complete all of these courses before they may apply for bioengineering major status. Credit for some of these courses may be achieved through high school Advanced Placement (AP) course work and exams.

Take all of the following Mathematics courses:

- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 2421 - Calculus III
- MATH 3195 - Linear Algebra and Differential Equations

Take all of the following Biology courses:

- BIOL 2051 - General Biology I
- BIOL 2071 - General Biology Laboratory I
- BIOL 2061 - General Biology II
- BIOL 2081 - General Biology Laboratory II

Take all of the following Chemistry courses:

- CHEM 2031 - General Chemistry I
- CHEM 2038 - General Chemistry Laboratory I
- CHEM 2061 - General Chemistry II
- CHEM 2068 - General Chemistry Laboratory II
- CHEM 3411 - Organic Chemistry I
- CHEM 3418 - Organic Chemistry Laboratory I

Take all of the following Physics courses:

- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I
- PHYS 2331-General Physics II: Calculus-Based
- PHYS 2341 - General Physics Lab II

Take all of the following Bioengineering courses:

- 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


## Upper-division Bioengineering Courses

All students admitted into the Bioengineering major must take the following upper-division major bioengineering courses regardless of their chosen track. Upper-division major classes will be taught at the Anschutz Medical Campus. These classes build upon pre-major courses and provide the next level of instruction in bioengineering.

- 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 4035 - Undergraduate BioDesign II
- BIOE 4045 - BioDesign III


## Track Electives

In addition to the upper-division Bioengineering courses, students must take a minimum of twelve additional semester hours to meet Bioengineering track elective requirements. Of these twelve semester hours, a minimum of six semester hours must be upper-division (3000- or 4000-level) and taught within the Department of Bioengineering.

Students' tracks and related course selections must be approved prior to registration.

## Biology BS

## Introduction

Please click here to see Integrative Biology department information.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. To ensure a proper background for the study of biology, majors are required to pass $31-33$ hours of course work in ancillary disciplines.
2. A minimum of 36 hours of biology must be completed, of which 18 hours are at the upper-division level and taken in residence with CU Denver downtown campus Biology faculty.
3. All biology courses applied to the undergraduate biology major must be completed within 10 years of graduation.
4. A minimum GPA of 2.0 is required for all BIOL courses applying to Biology requirements.
5. Biology and ancillary courses must be completed with a letter grade of $\mathrm{C}-(1.7)$ or higher.

Take all of the following Biology core courses:

- BIOL 2051 - General Biology I or
- BIOL 2095 - Honors General Biology I
- BIOL 2071 - General Biology Laboratory I or
- BIOL 2096 - Honors General Biology Lab I
- BIOL 2061 - General Biology II or
- BIOL 2097 - Honors General Biology II
- BIOL 2081 - General Biology Laboratory II or
- BIOL 2098 - Honors General Biology Lab II
- BIOL 3411 - Principles of Ecology
- BIOL 3611 - General Cell Biology
- BIOL 3832 - General Genetics
- BIOL 3445 - Introduction to Evolution

Take an additional 15 semester hours of upper-division biology, including:

1. At least one upper division biology lab course
2. At least one 3 credit hour 4000+ biology lecture course - taken in residence from CU Denver Biology faculty (BIOL 4125, 4840, 4880 and 4990 do not satisfy this requirement, but can apply as biology electives).
Note: Biochemistry (CHEM 3810-4 or 4820-3) may be counted as biology elective hours.
Note: A maximum total of six credit hours of Individually Structured courses, including Independent Study (BIOL 3840/4840), Directed Research (BIOL 4880) and Internship (BIOL 3939), may be counted toward the upper-division biology electives.

Take all of the following Ancillary Core courses:

- CHEM 2031-General Chemistry I or
- CHEM 2081 - Honors General Chemistry I
- CHEM 2038-General Chemistry Laboratory I or
- CHEM 2088 - Honors General Chemistry I Laboratory
- CHEM 2061 - General Chemistry II or
- CHEM 2091 - Honors General Chemistry II Lecture
- CHEM 2068 - General Chemistry Laboratory II or
- CHEM 2098 - Honors General Chemistry II Laboratory
- CHEM 3411 - Organic Chemistry I or
- CHEM 3481 - Honors Organic Chemistry I
- PHYS 2010 - College Physics I or
- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2030 - College Physics Lab I or
- PHYS 2321 - General Physics Lab I
- PHYS 2020 - College Physics II or
- PHYS 2331-General Physics II: Calculus-Based
- PHYS 2040 - College Physics Lab II or
- PHYS 2341 - General Physics Lab II
- MATH 1401 - Calculus I or
- MATH 1110 - College Algebra
* and BIOL 3763 or

MATH 1110 - College Algebra
*and MATH 4830
*Note: MATH 1120 or MATH 1130 may substitute for MATH 1110

## Chemistry BS

## Introduction

Please click here to see Chemistry department information.
The chemistry department offers four options for a chemistry degree. 1) BS Chemistry, 2) BS Chemistry ACS Certified, 3) BS Chemistry Biochemistry Emphasis and 4) BS Chemistry Biochemistry Emphasis ACS Certified. Students interested in the chemistry major, regardless of track, should consult regularly with the chemistry majors advisor. The advisor can help you select the track that best fits your future goals. A complete description of the four chemistry major's programs may be obtained in the Department of Chemistry office or department website.

Qualified majors are strongly urged to participate in independent study and departmental honors programs. We also strongly encourage chemistry majors to participate in the department by serving as learning assistants or teaching assistants.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a degree, students must satisfy all requirements in each of the 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
- Click here for information about Academic Policies


## Program Requirements

1. The Chemistry major requires 45 semester hours minimum in chemistry.
2. Students must take at least 14 upper-division chemistry hours, including CHEM 4128, 4518 or 4538 , in residency at CU Denver.
3. The minimum grade in Chemistry courses and ancillary courses is C-(1.7).
4. A minimum chemistry GPA of 2.0 is required in chemistry and ancillary required courses.
5. A student who has declared a chemistry major at CU Denver may not take additional chemistry courses outside of the department for the purpose of applying those credits toward meeting the requirements of the major without prior written approval of the undergraduate advisor. No more than 3 additional hours of such pre-approved transfer credits will be allowed.
6. All courses applied to the chemistry major need to be taken within ten years of the graduation date.

Take all of the following required courses:

- CHEM 2031-General Chemistry I or
- CHEM 2081 - Honors General Chemistry I
- CHEM 2038-General Chemistry Laboratory I or
- CHEM 2088 - Honors General Chemistry I Laboratory
- CHEM 2061 - General Chemistry II or
- CHEM 2091 - Honors General Chemistry II Lecture
- CHEM 2068 - General Chemistry Laboratory II or
- CHEM 2098 - Honors General Chemistry II Laboratory
- CHEM 3111 - Analytical Chemistry
- CHEM 3118-Analytical Chemistry Laboratory
- CHEM 3411 - Organic Chemistry I or
- CHEM 3481-Honors Organic Chemistry I
- CHEM 3418 - Organic Chemistry Laboratory I or
- CHEM 3488 - Honors Organic Chemistry Laboratory I
- CHEM 3421 - Organic Chemistry II or
- CHEM 3491 - Honors Organic Chemistry II
- CHEM 3498 - Honors Organic Chemistry Laboratory II
- CHEM 4521 - Physical Chemistry: Quantum and Spectroscopy
- CHEM 4538 - Physical Chemistry Laboratory: Molecular Structure
- CHEM 4511 - Physical Chemistry: Thermodynamics and Kinetics
- CHEM 4518 - Physical Chemistry Laboratory: Reaction Analysis
- CHEM 3011 - Inorganic Chemistry
- CHEM 4121 - Instrumental Analysis
- CHEM 4128 - Instrumental Analysis Laboratory

Take one of the following courses:

- CHEM 3018 - Inorganic Chemistry Laboratory
- CHEM 4828-Biochemistry Lab

Note: CHEM 4828 requires additional prerequisites other than the courses listed above.

Take all of the following Ancillary courses:

- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 3511 - Mathematics of Chemistry
- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321-General Physics Lab I
- PHYS 2331 - General Physics II: Calculus-Based
- PHYS 2341 - General Physics Lab II


## Chemistry BS, ACS Certified

## Introduction

Please click here to see Chemistry department information.
The chemistry department offers four options for a chemistry degree. 1) BS Chemistry, 2) BS Chemistry ACS Certified, 3) BS Chemistry Biochemistry Emphasis and 4) BS Chemistry Biochemistry Emphasis ACS Certified. Students interested in the chemistry major, regardless of track, should consult regularly with the chemistry majors advisor, Dr. Fishback. Vanessa.fishback@ucdenver.edu. The advisor can help you select the track that best fits your future goals. A complete description of the four chemistry major's programs may be obtained in the Department of Chemistry office or department website.

Qualified majors are strongly urged to participate in independent study, and departmental honors programs. We also strongly encourage chemistry majors to participate in the department by serving as learning assistants or teaching assistants.

Students planning chemistry as a career should be familiar with the recommendations of the American Chemical Society (ACS) for the professional training of chemists. For certification ACS requires students following the BS program of study take foundation courses in the five sub-disciplines of chemistry: analytical chemistry, biochemistry, inorganic chemistry, organic chemistry and physical chemistry. In addition, students take an in-depth (second semester) course in four out of the five sub-disciplines and are required to complete 400 hours of laboratory work post General Chemistry Laboratories. Laboratory work has to encompass four of the five sub-disciplines. General Chemistry I and II with laboratories are considered introductory courses and are prerequisites to foundation courses. No chemistry course with a grade of less than C (2.0) can be applied toward ACS certification. Students should check with the undergraduate chemistry majors advisor for details.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

This is an on-campus program.

## Declaring This Major

Click here to go to information about declaring a major

## General Requirements

To earn a degree, students must satisfy all requirements in each of the 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
- Click here for information about Academic Policies


## Program Requirements

1. The Chemistry major requires a minimum of 45 semester hours in chemistry.
2. Students must take at least 14 upper-division chemistry hours, including CHEM 4128, 4518 or 4538 , in residency at CU Denver.
3. The minimum grade in Chemistry courses is a $\mathrm{C}(2.0)$ and ancillary courses is C - (1.7).
4. A minimum chemistry GPA of 2.0 is required in chemistry and ancillary required courses.
5. A student who has declared a chemistry major at CU Denver may not take additional chemistry courses outside of the department for the purpose of applying those credits toward meeting the requirements of the major without prior written approval of the undergraduate advisor. No more than 3 additional hours of such pre-approved transfer credits will be allowed.
6. All courses applied to the chemistry major need to be taken within ten years of the graduation date.

Take all of the following required courses:

- CHEM 2031-General Chemistry I or
- CHEM 2081 - Honors General Chemistry I
- CHEM 2038 - General Chemistry Laboratory I or
- CHEM 2088 - Honors General Chemistry I Laboratory
- CHEM 2061 - General Chemistry II or
- CHEM 2091 - Honors General Chemistry II Lecture
- CHEM 2068 - General Chemistry Laboratory II or
- CHEM 2098 - Honors General Chemistry II Laboratory
- CHEM 3111 - Analytical Chemistry or
- CHEM 3118 - Analytical Chemistry Laboratory
- CHEM 3411 - Organic Chemistry I or
- CHEM 3481 - Honors Organic Chemistry I
- CHEM 3418- Organic Chemistry Laboratory I or
- CHEM 3488 - Honors Organic Chemistry Laboratory I
- CHEM 3421 - Organic Chemistry II or
- CHEM 3491 - Honors Organic Chemistry II
- CHEM 3498 - Honors Organic Chemistry Laboratory II
- CHEM 4521 - Physical Chemistry: Quantum and Spectroscopy
- CHEM 4538 - Physical Chemistry Laboratory: Molecular Structure
- CHEM 4511 - Physical Chemistry: Thermodynamics and Kinetics
- CHEM 4518 - Physical Chemistry Laboratory: Reaction Analysis
- CHEM 3011 - Inorganic Chemistry
- CHEM 3018 - Inorganic Chemistry Laboratory
- CHEM 4121 - Instrumental Analysis
- CHEM 4128 - Instrumental Analysis Laboratory
- CHEM 4810-General Biochemistry I or
- CHEM 3810 - Biochemistry

Take one of the following lecture courses:

- CHEM 4700 - Environmental Chemistry
- CHEM 4820 - General Biochemistry II
- CHEM 4835 - Biochemistry of Gene Regulation and Cancer
- CHEM 5010 - Advanced Inorganic Chemistry
- CHEM 5550 - Applications of Group Theory in Chemistry
or
- CHEM 4600-Advanced Topics in Chemistry (With permission from course instructor and undergraduate major advisor. The course must fulfill either the biochemistry or inorganic chemistry area.)

Take all of the following ancillary courses:

- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 3511 - Mathematics of Chemistry
- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321-General Physics Lab I
- PHYS 2331 - General Physics II: Calculus-Based
- PHYS 2341 - General Physics Lab II


## Chemistry BS, Biochemistry Emphasis

## Introduction

Please click here to see Chemistry department information.
The chemistry department offers four options for a chemistry degree. 1) BS Chemistry, 2) BS Chemistry ACS Certified, 3) BS Chemistry Biochemistry Emphasis and 4) BS Chemistry Biochemistry Emphasis ACS Certified. Students interested in the chemistry major, regardless of track, should consult regularly with the chemistry majors advisor, Dr. Fishback. Vanessa.fishback@ucdenver.edu. The advisor can help you select the track that best fits your
future goals. A complete description of the four chemistry major's programs may be obtained in the Department of Chemistry office or department website.

Qualified majors are strongly urged to participate in independent study, American Chemical Society (ACS) certification, and departmental honors programs. We also strongly encourage chemistry majors to participate in the department by serving as learning assistants or teaching assistants.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. The chemistry major with a biochemistry emphasis requires a minimum of 44 semester hours in Chemistry.
2. Students must take at least 14 upper-division chemistry hours, including CHEM 4518 or CHEM 4538 , in residency at CU Denver.
3. The minimum grade in Chemistry courses is $\mathrm{C}-$ (1.7).
4. A minimum GPA of 2.0 is required for all courses applying to major requirements.
5. A student who has declared a chemistry major at CU Denver may not take additional chemistry courses outside of the department for the purpose of applying those credits toward meeting the requirements of the major without prior written approval of the undergraduate advisor. No more than 3 hours of such pre-approved transfer credits will be allowed.
6. All courses applied to the chemistry major need to be taken within ten years of the graduation date. Take all of the following required courses:

- CHEM 2031 - General Chemistry I or
- CHEM 2081 - Honors General Chemistry I
- CHEM 2038 - General Chemistry Laboratory I or
- CHEM 2088 - Honors General Chemistry I Laboratory
- CHEM 2061 - General Chemistry II or
- CHEM 2091 - Honors General Chemistry II Lecture
- CHEM 2068 - General Chemistry Laboratory II or
- CHEM 2098 - Honors General Chemistry II Laboratory
- CHEM 3111 - Analytical Chemistry
- CHEM 3118 - Analytical Chemistry Laboratory
- CHEM 3411 - Organic Chemistry I or
- CHEM 3481 - Honors Organic Chemistry I
- CHEM 3418 - Organic Chemistry Laboratory I or
- CHEM 3488 - Honors Organic Chemistry Laboratory I
- CHEM 3421 - Organic Chemistry II or
- CHEM 3491 - Honors Organic Chemistry II
- CHEM 3498 - Honors Organic Chemistry Laboratory II
- CHEM 4511 - Physical Chemistry: Thermodynamics and Kinetics
- CHEM 4521 - Physical Chemistry: Quantum and Spectroscopy
- CHEM 4518 - Physical Chemistry Laboratory: Reaction Analysis or
- CHEM 4538 - Physical Chemistry Laboratory: Molecular Structure or
- CHEM 4548-Physical Biochemistry Laboratory
- CHEM 4810-General Biochemistry I or
- CHEM 5810 - Graduate Biochemistry I
- CHEM 4820 - General Biochemistry II or
- CHEM 5830 - Graduate Biochemistry II
- CHEM 4815-Structural Biology of Neurodegenerative Diseases
- CHEM 4825 - Biochemistry of Metabolic Disease
- CHEM 4828 - Biochemistry Lab
- CHEM 4835 - Biochemistry of Gene Regulation and Cancer

Take all of the following Ancillary courses:

- BIOL 2051 - General Biology I
- BIOL 2071 - General Biology Laboratory I
- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 3511 - Mathematics of Chemistry

Take one of the following sequences:

Sequence $A$

- 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
- MATH 3411 - Mathematics of Chemistry (Take this at the same time as either CHEM 4511 or CHEM 4521)
-OR-
Sequence B
- PHYS 2010 - College Physics I
- PHYS 2020-College Physics II
- PHYS 2030 - College Physics Lab I
- PHYS 2040 - College Physics Lab II
- CHEM 4500 - Foundations of Physical Chemistry (Take as a prerequisite to either CHEM 4511 or CHEM 4521)

Take any one 3000-level or higher CHEM course except CHEM 3810 (Biochemistry) or CHEM 3428 (Organic Chemistry II Laboratory). Note: some of these courses may require additional prerequisites.
or
Choose one of the following:

- BIOL 3124 - Introduction to Molecular Biology
- BIOL 3611 - General Cell Biology
- BIOL 3621 - Introduction to Immunology
- BIOL 3654-General Microbiology
- BIOL 3225 - Human Physiology
- BIOL 3832 - General Genetics
- BIOL 4064 - Advanced Cell Biology
- BIOL 4068/ BIOL 5068 - The Cell Cycle
- BIOL 4125 - Molecular Biology Laboratory
- BIOL 4126 - Molecular Genetics
- BIOL 4128 - Topics in Molecular Biology
- BIOL 4144 - Medical Microbiology
- BIOL 4550-Cell Signaling
- PHYS 3452 - Biophysics of the Cell NM
*Note: some of these courses may require additional prerequisites.


## Chemistry BS, Biochemistry Emphasis, ACS Certified

## Introduction

Please click here to see Chemistry department information.

The chemistry department offers four options for a chemistry degree. 1) BS Chemistry, 2) BS Chemistry ACS Certified, 3) BS Chemistry Biochemistry Emphasis and 4) BS Chemistry Biochemistry Emphasis ACS Certified. Students interested in the chemistry major, regardless of track, should consult regularly with the chemistry majors advisor, Dr. Fishback. Vanessa.Fishback@ucdenver.edu. The advisor can help you select the track that best fits your future goals. A complete description of the four chemistry major's programs may be obtained in the Department of Chemistry office or department website.

Qualified majors are strongly urged to participate in independent study, American Chemical Society (ACS) certification, and departmental honors programs. We also strongly encourage chemistry majors to participate in the department by serving as learning assistants or teaching assistants.

Students planning chemistry as a career should be familiar with the recommendations of the American Chemical Society (ACS) for the professional training of chemists. For certification ACS requires students following the BS program of study take foundation courses in the five sub-disciplines of chemistry: analytical chemistry, biochemistry, inorganic chemistry, organic chemistry and physical chemistry. In addition, students take an in-depth (second semester) course in four out of the five sub-disciplines and are required to complete 400 hours of laboratory work post General Chemistry Laboratories. Laboratory work has to encompass four of the five sub-disciplines. General Chemistry I and II with laboratories are considered introductory courses and are prerequisites to foundation courses. No chemistry course with a grade of less than C (2.0) can be applied toward ACS certification. Students should check with the undergraduate chemistry majors advisor for details.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

This is an on-campus program.

## Declaring This Major

Click here to go to information about declaring a major

## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. The chemistry major with a biochemistry emphasis requires a minimum of 44 semester hours in Chemistry.
2. Students must take at least 14 upper-division chemistry hours, including CHEM 4518 or CHEM 4538 , in residency at CU Denver.
3. The minimum grade in Chemistry courses is $C(2.0)$.
4. A minimum GPA of 2.0 is required for all courses applying to major requirements.
5. A student who has declared a chemistry major at CU Denver may not take additional chemistry courses outside of the department for the purpose of applying those credits toward meeting the requirements of the major without prior written approval of the undergraduate advisor. No more than 3 hours of such preapproved transfer credits will be allowed.
6. All courses applied to the chemistry major need to be taken within ten years of the graduation date.

Take all of the following required courses:

- CHEM 2031-General Chemistry I or
- CHEM 2081 - Honors General Chemistry I
- CHEM 2038 - General Chemistry Laboratory I or
- CHEM 2088 - Honors General Chemistry I Laboratory
- CHEM 2061 - General Chemistry II or
- CHEM 2091 - Honors General Chemistry II Lecture
- CHEM 2068-General Chemistry Laboratory II or
- CHEM 2098 - Honors General Chemistry II Laboratory
- CHEM 3111-Analytical Chemistry or
- CHEM 3118-Analytical Chemistry Laboratory
- CHEM 3411 - Organic Chemistry I or
- CHEM 3481-Honors Organic Chemistry I
- CHEM 3418 - Organic Chemistry Laboratory I or
- CHEM 3488 - Honors Organic Chemistry Laboratory I
- CHEM 3421 - Organic Chemistry II or
- CHEM 3491 - Honors Organic Chemistry II
- CHEM 3498 - Honors Organic Chemistry Laboratory II
- CHEM 3011 - Inorganic Chemistry
- CHEM 3018 - Inorganic Chemistry Laboratory
- CHEM 4511 - Physical Chemistry: Thermodynamics and Kinetics
- CHEM 4521 - Physical Chemistry: Quantum and Spectroscopy
- CHEM 4538 - Physical Chemistry Laboratory: Molecular Structure or
- CHEM 4548 - Physical Biochemistry Laboratory or
- CHEM 4518 - Physical Chemistry Laboratory: Reaction Analysis
- CHEM 4810 - General Biochemistry I or
- CHEM 5810 - Graduate Biochemistry I
- CHEM 4820-General Biochemistry II or
- CHEM 5830-Graduate Biochemistry II
- CHEM 4828- Biochemistry Lab

Take one of the following courses:

- CHEM 4121 - Instrumental Analysis
- CHEM 4700 - Environmental Chemistry
- CHEM 5010 - Advanced Inorganic Chemistry
- CHEM 5510-Computational Chemistry
- CHEM 5520-Molecular Structure and Spectra
- CHEM 4600 - Advanced Topics in Chemistry (with permission of instructor and chemistry major advisor. Course needs to fulfill analytical or inorganic chemistry areas)

Take all of the following ancillary courses:

- BIOL 2051 - General Biology I
- BIOL 2071 - General Biology Laboratory I
- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 3511 - Mathematics of Chemistry
- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I
- PHYS 2331-General Physics II: Calculus-Based
- PHYS 2341 - General Physics Lab II


## Civil Engineering BS

## Introduction

Please click here to see Civil Engineering department information.
The objectives of the bachelor of science in civil engineering program are to produce graduates who:

- are able to perform the technical analyses and design tasks of entry-level civil engineers
- can successfully work toward professional engineering licensure
- communicate effectively, both orally and in writing
- understand the importance of leadership skills, team building and ethical practice
- value lifelong learning and improvement through graduate degrees or professional study
- appreciate the importance of community involvement and social contribution civil engineers are dedicated to improving our living environment
Civil engineering offers an interesting and challenging career in the design, construction, and maintenance of buildings and urban infrastructure; in transportation systems, including highways, airports, rapid transit lines, railroads, and harbor facilities; in the development of water resources, including reservoirs for storage, canals for irrigation, dams for power generation, stormwater management for drainage, groundwater recharge for contamination prevention, wastewater treatment for environmental protection, and water purification for drinking
purposes; in the construction industry; including foundations, bridges, concrete and steel structures, in problems concerned with environmental preservation; and in the sustainable development of cities. In preparing for work in such a broad field, the civil engineering student studies mathematics, basic science, communication, social science and humanities, engineering science and civil engineering design. CU Denver's civil engineering graduates usually find their first professional employment with consulting engineering firms, government agencies and various industries.


## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Engineering and Applied Science Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must maintain a minimum 2.0 GPA in all courses applying to major requirements.
2. Students must maintain a minimum 2.0 GPA in all CVEN courses attempted.

Take all of the following Civil Engineering courses:

- CVEN 1025-Civil Engineering Graphics and Computer Aided Design
- CVEN 2121 - Analytical Mechanics I
- CVEN 2200 - Computing Methods in Civil Engineering
- CVEN 2212 - Engineering Surveying
- CVEN 3111 - Analytical Mechanics II
- CVEN 3121 - Mechanics of Materials
- CVEN 3141 - Introduction to Structural Materials
- 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 4000 - Senior Seminar
- CVEN 4067 - Senior Design Projects
- CVEN 4230 - Construction Engineering Systems
- CVEN 4728 - Geotechnical Engineering II

Take four of the following Design Electives courses:

- CVEN 4427 - Storm Water System Design
- CVEN 4565 - Timber Structure Design
- CVEN 4575 - Structural Steel Design
- CVEN 4585 - Reinforced Concrete Design
- CVEN 4602 - Highway Engineering
- CVEN 4738 - Intermediate Foundation Engineering

Take all of the following Mathematics courses:

- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 2421 - Calculus III
- MATH 3195 - Linear Algebra and Differential Equations
- MATH 3800 - Probability and Statistics for Engineers or CVEN 3611 - Engineering Statistics

Take one of the following Chemistry courses/sets:

- CHEM/ ENGR 1130-Chemistry for Engineers or
- CHEM 2031 - General Chemistry I and
- CHEM 2038 - General Chemistry Laboratory I

Take all of the following Physics courses:

- PHYS 2311-General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I
- PHYS 2331-General Physics II: Calculus-Based

Take one of the following courses:

- CVEN 4780 - Engineering Geology
- GEOL 1072 - Physical Geology: Surface Processes
- CVEN 4077 - Engineering Economy

Any approved 4000-level CVEN courses or 3000-level math, science or engineering courses.
Note: Up to two 5000-level CVEN courses taken at CU Denver for the BSCE can be applied to a CE Masters degree at CU Denver if relevant to the student's Masters degree emphasis as determined by the students Masters degree advisor.

Take three elective courses: (Listed below are approved electives. For additional approved electives, please see your advisor.)

- CVEN 4077 CVEN 4077 - Engineering Economy
- CVEN 4087 CVEN 4087 - Engineering Contracts
- CVEN 4780 CVEN 4780 - Engineering Geology
- ELEC 3030 ELEC 3030 - Electric Circuits and Systems
- MECH 3012 MECH 3012 - Thermodynamics


## Communication BA

## Introduction

Please click here to see Communication department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This program is offered both on-campus and online.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. The communication major requires that students take a total of 39 hours of course work in communication, 18 of which must be taken in residence at CU Denver.
2. At least 18 of the 39 hours must be upper-division.
3. Communication majors may complete up to 6 hours of internship credit (COMM 3939).
4. A minimum GPA of 2.0 is required for all courses applying to Communication requirements.
5. A maximum of 6 semester hours of independent study courses may be applied to the major.

Take all of the following Communication courses:

- COMM 1011 - Fundamentals of Communication
- COMM 1021 - Introduction To Media Studies
- COMM 2020-Communication, Citizenship, and Social Justice

Take one of the following courses:

- COMM 1001 - Presentational Speaking
- COMM 2050 - Business and Professional Speaking

Take eight Communication electives:
In addition to required Communication courses, students are required to take eight elective courses ( 24 hours), which may consist of classes chosen from any combination of Pathway and Critical Toolbox Courses.

- community service and public affairs
- health communication
- legal communication
- media studies
- strategic communication
- political communication and government
- critical toolbox courses

Take one of the following exit courses:

- COMM 3939 - Internship
- COMM 4040 - Communication, Prisons, and Social Justice
- COMM 4051 - Advanced Strategic Communication
- COMM 4500 - Health Communication
- COMM 4550 - Rhetorics of Medicine \& Health
- COMM 4700 - Writing Practicum
- COMM 4995 - Travel Study (options include Guatemala, Italy or China in Maymester, and Spain in Winterim)


## Computer Science BS

## Introduction

Please click here to see Computer Science department information.
The educational objectives of the computer science undergraduate program are to produce graduates who:

- Advance professionally as productive, practicing professionals in computer science and related careers through the continued development of their expertise and skills.
- Further develop their knowledge, skill set, and career opportunities through graduate education and/or professional studies.
- Function effectively as part of a team to succeed in their professional careers.


## Measurable Outcomes

The BS-CS program must enable its students to attain, by the time of graduation:

- An ability to apply knowledge of computing and mathematics appropriate to the discipline
- An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution
- An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs
- An ability to function effectively on teams to accomplish a common goal
- An understanding of professional, ethical, legal, security and social issues and responsibilities
- An ability to communicate effectively with a range of audiences
- An ability to analyze the local and global impact of computing on individuals, organizations, and society
- Recognition of the need for and an ability to engage in continuing professional development
- An ability to use current techniques, skills, and tools necessary for computing practice
- An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
- An ability to apply design and development principles in the construction of software systems of varying complexity.


## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Engineering and Applied Science Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must maintain a minimum 2.0 GPA in all courses applying to major requirements.
2. Students must maintain a minimum 2.0 GPA in all CSCI courses attempted.

Take all of the following Computer Science courses:

- CSCI 1410 - Fundamentals of Computing
- CSCI 1411 - Fundamentals of Computing Laboratory
- CSCI 1510 - Logic Design
- CSCI 2312 - Object Oriented Programming
- CSCI 2421 - Data Structures and Program Design
- CSCI 2511 - Discrete Structures
- CSCI 2525 - Assembly Language and Computer Organization
- CSCI 3287 - Database System Concepts
- 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 4034 - Theoretical Foundations of Computer Science
- CSCI 4287 - Embedded Systems Programming
- CSCI 4591 - Computer Architecture
- CSCI 4650 - Numerical Analysis I
- CSCI 4738 - Senior Design I
- CSCI 4739 - Senior Design II
- CSCI 4761 - Introduction to Computer Networks

Take twenty-one hours of Technical Electives from CSCI 3000 or 4000-level that are not part of the required Bachelor of Science in Computer Science (BSCS) curriculum. Students may also count up to two of the following which may be taken to satisfy computer science: CSCI 2930, CSCI 2940, CSCI 2941, CSCI 2942.

Take all of the following Mathematics courses:

- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 3195 - Linear Algebra and Differential Equations

Take all of the following Science courses:

- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I
- PHYS 2331-General Physics II: Calculus-Based
- PHYS 2341-General Physics Lab II


## Criminal Justice BA

## Introduction

Please click here to see School of Public Affairs information.
The School of Public Affairs' Bachelor of Arts program in Criminal Justice (BACJ) is interdisciplinary and combines course work in criminology and criminal justice with a liberal arts focus. The Criminal Justice degree prepares students for occupations within criminology and criminal justice agencies by providing them with the critical thinking, writing, and presentation skills necessary for career advancement or graduate study. The course work explores the complex nature of crime causation; the history, framework, and operations of criminal justice organizations; the implications of public policies related to crime and justice; and the intricacies of many substantive aspects of criminology and criminal justice, including capital punishment, victimology, race and crime, and community corrections. Further our program integrates research methods and statistics to help students critically consume information, determine how to ask important questions, and carry out research, should they choose to do so. Our program is designed to ensure that graduates adapt to the evolving nature of criminology and criminal justice.

As with all undergraduate degrees, students must complete the requirements of the CU Denver core curriculum. The CU Denver core curriculum draws heavily on social and natural sciences, as well as liberal arts, offering students the benefit of a well-rounded education. The BACJ program will not only provide a direct line to employment in the
growing fields of criminology and criminal justice, but it also will facilitate the transition of outstanding students into the School of Public Affairs' MCJ and PhD graduate programs. Students will be well-prepared with respect to substantive knowledge, critical thinking and analytic skills, research methods, and participating in diverse and inclusive environments to pursue advanced degrees in Criminology, Criminal Justice, and related fields.

## Program Delivery

- This is an on-campus and online program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- School of Public Affairs Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must receive a minimum C- grade in each undergraduate course applied to satisfy major or minor degree requirements and must maintain a 2.0 GPA overall in major or minor courses.
2. The Bachelors of Arts in Criminal Justice degree requires 36 credit hours of coursework.
3. Students must complete a minimum of 45 upper-division credit hours, 21 of which must be Criminal Justice credit hours.
4. A maximum of 15 transfer credit hours may be applied to the major. Transfer Criminal Justice credit hours above the 15 credit hours already applied to the major will count as general electives. CRJU courses taken from the University of Colorado Colorado Spring are not subject to this transfer credit limit for the major. Take all of the following required courses:

- CRJU 1000 - Criminology and Criminal Justice: An Overview
- CRJU 2041 - Crime Theory and Causes
- CRJU 3100 - Criminal Justice Research Methods
- CRJU 3150 - Statistics for Criminal Justice *
- CRJU 4042 - Corrections
- CRJU 4043 - Law Enforcement
- CRJU 4044 - Courts and Judicial Process
- SOCY 1001 - Introduction to Sociology **

[^0]Take fifteen credit hours of electives, nine of which must be Criminal Justice courses offered by the School of Public Affairs, and six of which may be taken from the approved list of other department courses.

Criminal Justice Electives:
Any 3000 or 4000 level CRJU course not already required for the major may count as a Criminal Justice major elective.

- CRJU 4939 - Internship *

The internship course, CRJU 4939, is required as one of the electives for the major unless officially waived by the BACJ Program Director. Students whose internship is approved will take a 3 credit hour Criminial Justice elective in place of a 3 credit hours internship. See SPA Graduation Requirements for more information.

Other electives: **

- ANTH 4090 - Drug Syndemic
- COMM 4040 - Communication, Prisons, and Social Justice
- COMM 4265 - Gender and Communication
- COMM 4750 - Legal Reasoning and Writing
- HIST 4308 - Crime, Policing, and Justice in American History
- ECON 3300 - Economics of Crime and Punishment
- PSCI 3034 - Race, Gender, Law and Public Policy
- PSCI 4124 - Denver Politics
- PSCI 4185 - Corruption in the U.S. and Abroad
- PSCI 4237 - American National Security
- PSCI 4280 - The Politics of War Law
- PSCI 4427 - Law, Politics and Justice
- PSCI 4437 - Coercion and the State
- PSCI 4477 - Constitutional Law I
- PSCI 4487 - Constitutional Law II
- PSCI 4494 - Judicial Politics
- PSCI 4545 - Immigration Politics
- PSCI 4837 - Contemporary Issues in Civil Liberties
- PSYC 3205 - Human Development I: Child Psychology
- PSYC 3215 - Human Development II: Adolescence and Adulthood
- PSYC 3265 - Drugs, Brain and Behavior
- PSYC 3305-Abnormal Psychology
- PSYC 3505 - Psychology and the Law
- PSYC 3610 - Psychological Trauma
- PSYC 3612 - Domestic Abuse
- SOCY 2462 - Introduction to Social Psychology
- SOCY 3020 - Race and Ethnicity in the U.S.
- SOCY 3040 - Drugs, Alcohol \& Society
- SOCY 3490 - Criminology
- SOCY 3600 - Social Relations
- SOCY 3700 - Sociology of the Family
- SOCY 4340 - Juvenile Delinquency
- SOCY 4440 - Poverty and Social Inequality
- SOCY 4460 - Hate Groups and Group Violence
- SOCY 4700 - Sociology of Law
- SOCY 4770 - Advanced Topics in Sociology (Women \& Crime)
- See advisor for recent additions to the list
**Students must comply with departmental prerequisites.


## Digital Design Emphasis, Fine Arts BFA

## Introduction

Please click here to see general Visual Arts information.
The digital design emphasis integrates aesthetic, creative and critical thought with expertise in electronic media and graphic design. Configured as an interdisciplinary arts and design laboratory, digital design offers a hands-on education combining new art technologies and design research to promote an understanding of the cultural impact and use of digital technology to solve human, social and business problems. Through this interdisciplinary approach combining arts and communication, digital design strives to produce artists and designers who will use technology in innovative ways in both commercial and artistic spheres.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major
- Students who are applying for entrance into the digital design emphasis must submit a portfolio, as described below. The digital design emphasis accepts applications only once a year. Students who meet the requirements and are accepted will be able to register for upper-division digital design courses.


## ELIGIBILITY

The student has completed, or is in the process of completing, the following courses with a grade of C (2.0) or better in each:

- FINE 1400 - Two Dimensional Design
- FINE 2405 - Introduction to Digital Design
- FINE 2415 - Typography Studio

FINE 2405 and 2415 are both offered in the fall at CU Denver.

## PORTFOLIO APPLICATION REQUIREMENTS

To properly prepare the application, refer to the digital design website for detailed instructions. Applications are due by November 1 at 5:00pm (Mountain Time) or on the following business day if the deadline falls on a weekend or holiday.

Applications are only accepted online via the portfolio service SlideRoom.com and must be formatted to the specifications listed on the digital design website. The portfolio samples should consist of images (.jpgs) and
embedded video. Written work should be integrated into the submission. It is VERY important for students to visit the submission page early and begin uploads two weeks before the due date. Late submissions due to technical difficulties on the part of the applicant will NOT be accepted.

## Portfolio of Images

The portfolio must include 13-16 electronic examples of the student's creative work, consisting of a Design Project (including a writing sample) and works from FINE 1400 Two Dimensional Design, FINE 2405 Introduction to Digital Design and FINE 2415 Typography. Two to five additional creative works may also be included within the maximum of 16 works altogether.

## Course Transcripts

These may be official or unofficial transcripts from CU Denver and previous post-secondary institutions. The CU Denver transcript must show any current semester courses.

## THE EVALUATION PROCESS

- A committee of design faculty members reviews the portfolio and grades. For acceptance, the committee looks for an understanding of 2D design, writing and presentation skills.
- If not admitted into the digital design emphasis, a student has the choice of attempting the review process again the following year or applying to another emphasis outside of digital design. Students not admitted into the digital design emphasis are encouraged to schedule a meeting with a digital design faculty member to learn of ways to improve portfolios for future submissions.


## Broad criteria for the portfolio evaluation are as follows:

- Process Research and Analysis - Does the portfolio demonstrate an ability to compile relevant information by identifying resources necessary to formulate a deeper understanding of context(s)?
- Design Principles - Does the portfolio demonstrate awareness of design principles through various means of technical production and successful color experimentation?
- Visual Literacy - Does the portfolio reflect sensitivity to design concepts and visual logic, and does it demonstrate fundamental understanding of composition? Does the work communicate effectively?
- Use of Imagery - Does the portfolio demonstrate a student's potential ability to create and develop visual form in response to communication problems?
- Expressive Typography - Does the portfolio demonstrate a burgeoning awareness of the importance of risk-taking while solving typographic design problems?
- Generating and Selecting Ideas - Does the portfolio demonstrate the student's ability to generate multiple solutions to artistic problems and utilize process to select the most effective solutions?
- Technical Skill - Does the portfolio reflect a strong knowledge of tools and materials and an aptitude for digital design skills?
- Conceptual Skills - Do the portfolio and writing samples demonstrate analytical thinking as it applies to visual art and design? Is there a developing conceptual exploration of the digital medium?
- Writing Sample - Does the writing demonstrate the student's critical thinking skills regarding the work and ability to address an assignment in a notable way?
- Presentation - Is the portfolio well-crafted and well organized in content and presentation? Are all of the required components included?
- Academic Performance - Do the student's grades reflect a commitment to learning and growth? QUESTIONS

For more portfolio information, please contact CAM@ucdenver.edu or digital design area head Bryan Leister at bryan.leister@ucdenver.edu

## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Arts \& Media Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minimum grade of $C(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C - (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
2. All upper-division visual arts courses must be taken at CU Denver unless approved otherwise by Department of Visual Arts faculty.
3. At least 27 semester hours of visual arts credits (at any level) must be taken at CU Denver.
4. At least 24 semester hours of total visual arts courses must be upper-division.

Take all of the following Pre-Portfolio courses:

- FINE 1400 - Two Dimensional Design
- FINE 2405 - Introduction to Digital Design
- FINE 2415 - Typography Studio

Take all of the following Digital Design Emphasis courses (available only to students accepted to emphasis via portfolio review):

- FINE 3414 - Motion Design I
- FINE 3415 - Design Studio I
- FINE 3417 - Design Research
- FINE 3424 - Interactive Media
- FINE 3434-3D Motion Design
- FINE 3444 - Interactive Media II
- FINE 3454 - Motion Design II
- FINE 3464 - Design Studio II
- FINE 3474 - Narrative and Experience
- FINE 4400 - Design Studio III
- FINE 4480 - The Practice of Design
- FINE 4495 - Design Studio IV: Thesis (It is highly suggested that ALL art history courses be completed prior to enrolling in FINE 4495.)

Take all of the following Visual Arts courses:

- FINE 1100 - Drawing I
- FINE 1500 - Three-Dimensional Design
- FINE 2155 - Introduction to Digital Photography
- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II
- FINE 4600 - History of Modern Design:Industrial Revolution-Present
- FINE 4990 - Contemporary Art: 1960 to Present

Take three semester hours of Pre-20th Century Art History elective.

Take six semester hours of Studio Arts electives.

Take six semester hours of Visual Arts electives. These may include studio, lecture, internship or art history courses.

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for lists of approved electives and more information about this emphasis.

## Economics BA

## Introduction

Please click here to see Economics department information.
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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. 40 hours are needed in major requirements.
2. The minimum grade in each CU Denver economics course is a $C$ - (1.7), except that one $D$ - in one economics elective is allowed.
3. A minimum GPA of 2.5 is required for all courses applying to Economics requirements. Note: Only courses taken at CU Denver will apply.
4. No pass/fail grades may count toward a major.
5. All courses other than ECON 2012 and ECON 2022 require written department approval to be transferred in as satisfying major requirements.
6. Graduating seniors must submit the three best papers that the student wrote in any three separate courses taken in the Economics Department for the outcomes assessment of the Economics program. The three papers should be handed in at one time in a folder to the Economics office, before the first day of the month in which the student plans to graduate.
Take all of the following required courses:

- ECON 2012 - Principles of Economics: Macroeconomics
- ECON 2022 - Principles of Economics: Microeconomics
- ECON 3801 - Introduction to Mathematical Economics
(MATH 1401 - Calculus I or MATH 2411 - Calculus II with a grade of B or higher will satisfy the ECON 3801 requirement; if taken, ECON 3801 can then be counted as an elective)
- ECON 3811 - Statistics with Computer Applications
- ECON 4071 - Intermediate Microeconomic Theory
- ECON 4081 - Intermediate Macroeconomic Theory
- ECON 4811 - Introduction to Econometrics

Take six three-semester hour courses in economics; four of them must be at the 4000 -level. Any courses taken in Economics may satisfy this requirement, other than internships and independent studies which require the approval of the department chair.

## Education and Human Development, Early Childhood Education BA - Licensure Track

## Introduction

Please click here to see School of Education \& Human Development information.
The Early Childhood Education (ECE) track in the Education and Human Development major has a strong focus on engaging Colorado's rapidly diversifying student and family population. It combines cutting-edge research with real classroom experiences. You'll learn with innovative faculty members who are locally and nationally recognized for their research in early childhood education. They will provide you with a robust knowledge base and relevant learning experiences in children's thinking, culturally responsive education, supporting dual language learners, inclusive and engaging classroom and curricular design and assessment and documentation of young children's learning. At the same time, you will benefit from strong school and community partnerships that are unmatched in the state. All ECE track students have the opportunity to take all required courses to fulfill the State of Colorado's Director qualifications and become leaders in the field of early learning.

The ECE track has two options: Licensure and Non-licensure.

## Licensure track

Students who select the 126 credit hour licensure track fulfill all requirements for a license to teach children BirthAge 8 in Colorado's school districts and community-based early childhood centers. This track prepares students to become teachers of children up through third grade. Field-based experiences take place in the School of Education's Professional Development network of partner schools.

## Non-Licensure track

This 120 credit hour track is ideal for students who currently and/or intend to work in community-based early childhood environments that serve children from infancy-age five years. Courses include field-based experiences that can take place in settings where students currently work. Students can elect to follow either the Teaching or the Leading strand. The Teaching strand ensures that students can return for one additional semester to fulfill licensure requirements. The Leading strand ensures that students fulfill the Colorado Department of Human Services Director Qualification requirements and offers the option of obtaining an ECE Coaching Certificate.

## Program Delivery

- This is an on-campus program with a variety of delivery options for many of our courses including hybrid, evening, weekend and online courses.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a 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
- School of Education and Human Development Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete a total of 126 semester hours for the EDHD - Early Childhood Education Track
2. Students must take the PLACE Exam during their Junior year to complete licensure requirements.
3. Application to the Senior professional year is required.
4. A minimum GPA of 3.0 is required for all courses applying to EDHD-Early Childhood Education requirements.
5. Students must complete and maintain a 3.0 minimum grade point average in Professional Year coursework to complete licensure requirements. Please see an advisor for more information on this requirement.
6. Transfer courses must be approved by faculty and/or advisor to apply to the major.
7. An application process is required to continue into your last professional year (last year of your program).

Take all of the following Education and Human Development - Early Childhood Education (licensure track) major courses:

Note: courses marked with an asterisk require a grade of B- or better

- CLDE 4030 - Language Development of Multilingual Learners
- CLDE 4820 - Teaching Multilingual Learners
- ECED 4060 - Working with Families, Professionals, and Communities
- EDFN 1000 - Equality, Rights \& Education
- EDFN 4010 - Social Foundations and Cultural Diversity in Urban Education *
- HDFR 2110 - Child Ecology or HDFR 3050 - Children's Thinking and Assessment
- INTE 2000 - Digital Teaching and Learning
- LCRT 3720 - Introduction to Writing Development and Teaching
- LCRT 4710 - Primary Literacy for Diverse Learners: Pre K-3rd Grade
- MATH 3040 - Mathematics for Elementary Teachers *
- ECED 2000 - Early Childhood Education as a Profession
- ECED 2001 - Early Childhood as a Profession Lab
- ECED 4030 - Nutrition, Health, and Safety
- ECED 4070 - Development and Education of Infant and Toddlers
- ECED 4200 - Assessment for Early Childhood Classrooms
- ECED 4202 - Classroom Management
- EDHD 1930 - Community Based Field Experience \& Seminar *
- ECED 2930 - Infant \& Toddler Field Experience \& Seminar *
- EDHD 2930 - Learning \& Development Field Experience \& Seminar *

Take all of the following Professional Year courses (a grade of B- or better is required in each course):

- ECED 4300 - Exceptional Learners in the Early Childhood Classroom or SPED 4030 - Understanding (dis)Ability in Contemporary Classrooms
- LCRT 4000 - Elementary Literacy Instruction and Assessment PK-2
- ECED 4010 - Social Studies \& Creative Arts
- SCED 4004 - Elementary Science Teaching or ECED 4020 - Science for P-2 Classrooms
- MTED 4002 - Elementary Mathematics Teaching I
- ECED 4040 - Administration of Early Childhood Care and Education Programs
- ECED 4102 - Developmentally Appropriate Curriculum Methods and Techniques
- ECED 4931 - Internship I \& Collaborative Learning Community
- ECED 4932 - Internship II \& Collaborative Learning Community
- ECED 4933 - Internship III \& Collaborative Learning Community

Additional General Electives hours may be needed to reach the required 126 hours for the BA.

## Education and Human Development, Early Childhood Education BA - Non-Licensure Track

## Introduction

Please click here to see School of Education \& Human Development information.

The Early Childhood Education (ECE) track in the Education and Human Development major has a strong focus on engaging Colorado's rapidly diversifying student and family population. It combines cutting-edge research with real classroom experiences. You'll learn with innovative faculty members who are locally and nationally recognized for their research in early childhood education. They will provide you with a robust knowledge base and relevant learning experiences in children's thinking, culturally responsive education, supporting dual language learners, inclusive and engaging classroom and curricular design and assessment and documentation of young children's learning. At the same time, you will benefit from strong school and community partnerships that are unmatched in the state. All ECE track students have the opportunity to take all required courses to fulfill the State of Colorado's Director qualifications and become leaders in the field of early learning.

The ECE track has two options: Licensure and Non-licensure.

## Licensure track

Students who select the 126 credit hour licensure track fulfill all requirements for a license to teach children BirthAge 8 in Colorado's school districts and community-based early childhood centers. This track prepares students to become teachers of children up through third grade. Field-based experiences take place in the School of Education's Professional Development network of partner schools.

## Non-Licensure track

This 120 credit hour track is ideal for students who currently and/or intend to work in community-based early childhood environments that serve children from infancy-age five years. Courses include field-based experiences that can take place in settings where students currently work. Students can elect to follow either the Teaching or the Leading strand. The Teaching strand ensures that students can return for one additional semester to fulfill licensure requirements. The Leading strand ensures that students fulfill the Colorado Department of Human Services Director Qualification requirements and offers the option of obtaining an ECE Coaching Certificate.

## Program Delivery

- This is an on-campus program with a variety of delivery options for many of our courses including hybrid, evening, weekend and online courses.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a 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
- School of Education and Human Development Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete a total of 120 semester hours for the EDHD - Early Childhood Education NonLicensure Track
2. A minimum GPA of 3.0 is required for identified major and licensure coursework.
3. Transfer courses must be approved by faculty and/or advisor to apply to the major. Take two of the following EDHD major courses:

- HDFR 1020 - Black and Latino Children
- HDFR 3260 - Family Systems and Social Justice
- HDFR 4001 - Families and Parenting
- HDFR 4010 - Family and Cultural Diversity
- HDFR 4040 - Latino Families in School and Communities

Take 39 semester hours in either the Teaching or Leading Strand

Leading Strand Required courses:

- ECED 2000 - Early Childhood Education as a Profession
- ECED 4030 - Nutrition, Health, and Safety
- ECED 4040 - Administration of Early Childhood Care and Education Programs
- 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 4410 - Using Coaching Skills in Early Childhood Settings
- ECED 4420 - Connecting Awareness With Application \& Deepening Of Practice
- ECED xxxx - Administrative Leadership
- ECED xxxx - Mental Health for ECE
- ECED xxxx - Issues in the Early Childhood Field Internship
- HDFR 4003 - Leadership and Organizations or ECED 4091-Advocacy in ECE

Teaching Strand Required Courses:

- ECED 2000 - ECE as a Profession
- ECED 4030 - Nutrition, Health and Safety
- ECED 4070 - Development of Infants and Toddlers
- ECED 4102 - Developmentally Appropriate Curriculum Methods \& Techniques
- ECED 4200 - Assessment for EC Classrooms
- ECED 4202 - Classroom Management
- ECED xxxx - Inquiry Approaches to Teaching Practices in Math, Science and Social Studies
- EDHD 1930 - Community Based Field Experience \& Seminar
- EDHD 2930 - Learning \& Development Field Experience \& Seminar
- ECED 2930 - Infant \& Toddler Field Experience \& Seminar
- ECED 4933 - Internship III \& Collaborative Learning Community
- ECED xxxx - Mental Health for ECE Professionals

Additional General Electives hours may be needed to reach the required 120 hours for the BA.

## Education and Human Development, Elementary Education BA

## Introduction

Please click here to see School of Education \& Human Development information.
The Education and Human Development major focuses on engaging Colorado's rapidly diversifying student and family population. It combines cutting-edge research with real classroom experiences. You'll learn from innovative faculty members who are locally, nationally and internationally recognized for their research in elementary education. They will provide you with a robust knowledge base and relevant learning experiences in children's thinking, culturally responsive education, and supporting English language learners, as well as technology as it relates to teaching children in grades kindergarten through sixth grade. You'll engage in powerful classroom experiences and benefit from our rich 20-year history of partnerships with local school districts.

We will prepare you to become a highly effective, innovative and compassionate elementary teacher skilled in improving student performance and reaching the needs of today's diverse learners in a variety of school settings. You will have the skills to be a teacher leader. CU Denver graduates often go on to acquire positions in educational leadership as their careers progress.

## Program Delivery

- This is an on-campus program with a variety of delivery options for many of our courses including hybrid, evening, weekend, and online courses.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a 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
- School of Education and Human Development Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete a total of 126 semester hours for the EDHD - Elementary Education Track
2. Students must take the Praxis II Exam during their Junior year to complete licensure requirements.
3. Application to the Senior professional year is required.
4. A minimum GPA of 3.0 is required for all courses applying to EDHD - Elementary Education requirements.
5. Students must complete and maintain a 3.0 minimum grade point average in Professional Year coursework to complete licensure requirements. Please see an advisor for more information on this requirement.
6. Transfer courses must be approved by faculty and/or advisor to apply to the major.
7. An application process is required to continue into your last professional year (last year of your program).

Take all of the following Education and Human Development - Elementary Education major courses:
Note: courses marked with an asterisk require a grade of B- or better

- CLDE 4020 - Responsive Classroom Communities *
- CLDE 4030 - Language Development of Multilingual Learners
- CLDE 4820 - Teaching Multilingual Learners
- EDFN 1000 - Equality, Rights \& Education
- EDFN 4010 - Social Foundations and Cultural Diversity in Urban Education *
- HDFR 2110 - Child Ecology or HDFR 3050 - Children's Thinking and Assessment
- INTE 2000 - Digital Teaching and Learning
- LCRT 3720 - Introduction to Writing Development and Teaching
- LCRT 4710 - Primary Literacy for Diverse Learners: Pre K-3rd Grade
- MATH 3040 - Mathematics for Elementary Teachers *
- SPED 4030 - Understanding (dis)Ability in Contemporary Classrooms *
- SPED 4300 - Family, Professional, and Community Collaboration
- SPED 4400 - Universal Design for Learning (UDL)
- CLDE 4160 - History \& Law of Bilingual \& Immigrant Education
- EDHD 1930 - Community Based Field Experience \& Seminar *
- EDHD 2930 - Learning \& Development Field Experience \& Seminar *
- EDHD 3930 - Diverse Learners Field Experience \& Seminar *

Take all of the following Professional Year courses (a minimum grade of B- is required in each course):

- LCRT 4000 - Elementary Literacy Instruction and Assessment PK-2
- LCRT 4001 - Elementary Literacy Instruction \& Assessment 3rd-6th
- MTED 4002 - Elementary Mathematics Teaching I
- MTED 4003 - Elementary Mathematics Teaching II
- SCED 4004 - Elementary Science Teaching
- UEDU 4040 - Exploring Diversity in Content and Pedagogy I
- EDHD 4050 - Special Topics in Education and Human Development
- UEDU 4931 - Internship \& Lrng Comm I
- UEDU 4932 - Internship \& Lrng Comm II
- UEDU 4933 - Internship \& Lrng Comm III

Additional General Electives hours may be needed to reach the required 126 hours for the BA.

## Education and Human Development, Special Education BA

## Introduction

Please click here to see School of Education \& Human Development information.
The need for highly qualified, culturally and linguistically responsive special education teachers is on the rise in Colorado and the nation. The Special Education track of CU Denver's bachelor's degree in Education and Human Development prepares students to address the exceptional learning needs of individuals ages five to 21.

The Special Education track combines cutting-edge research with real classroom experiences. You'll learn from faculty who are locally, nationally and internationally recognized for their research and innovation. They will provide you with critical knowledge and interventions to teach learners with exceptional learning needs. You'll be able to apply your new knowledge through frequent, powerful hands-on classroom experiences, and you'll discover the advantage of our rich 20-year history of school and community partnerships.

The program is designed to enhance your ability to effectively support diverse, urban students with disabilities in K12 public schools and alternative settings. Faculty members will foster your growth as a teacher and educational leader who promotes inclusion and equity for all. This program strives to help you:

- Gain a holistic understanding of special education
- Collaborate with schools and communities
- Engage in culturally and linguistically responsive teaching and leadership


## Program Delivery

- This is an on-campus program with a variety of delivery options for many of our courses including hybrid, evening, weekend and online courses.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a 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
- School of Education and Human Development Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete a total of 125 semester hours for the EDHD - Special Education Track
2. Students must take the PLACE or Praxis II Exam during their Junior year to complete licensure requirements.
3. Application to the Senior professional year is required.
4. A minimum GPA of 3.0 is required for all courses applying to EDHD - Special Education requirements.
5. Students must complete and maintain a 3.0 minimum grade point average in Professional Year coursework to complete licensure requirements. Please see an advisor for more information on this requirement.
6. Transfer courses must be approved by faculty and/or advisor to apply to the major.
7. An application process is required to continue into your last professional year (last year of your program).

Take all of the following Education and Human Development - Special Education major courses:
Note: Courses with an asterisk require a grade of B- or better

- CLDE 4020 - Responsive Classroom Communities *
- CLDE 4030 - Language Development of Multilingual Learners
- EDFN 1000 - Equality, Rights \& Education
- EDFN 4010 - Social Foundations and Cultural Diversity in Urban Education *
- HDFR 2110 - Child Ecology or HDFR 3050 - Children's Thinking and Assessment
- INTE 2000 - Digital Teaching and Learning
- LCRT 3720 - Introduction to Writing Development and Teaching
- LCRT 4710 - Primary Literacy for Diverse Learners: Pre K-3rd Grade
- MATH 3040 - Mathematics for Elementary Teachers *
- SPED 4030 - Understanding (dis)Ability in Contemporary Classrooms *
- EDHD 1930 - Community Based Field Experience \& Seminar *
- EDHD 2930 - Learning \& Development Field Experience \& Seminar *
- EDHD 3930 - Diverse Learners Field Experience \& Seminar *

Take all of the following Professional Year courses (a grade of B- or better is required in each course):

- LCRT 4000 - Elementary Literacy Instruction and Assessment PK-2
- MTED 4002 - Elementary Mathematics Teaching I
- MTED 4003 - Elementary Mathematics Teaching II
- SPED 4010 - Intentional Interventions for Exceptional Learners
- SPED 4140 - Assessment: Inquiry, Instruction, \& Intervention
- SPED 4151 - Slashing Stigmas: Promoting Positive Behaviors
- SPED 4300 - Family, Professional, and Community Collaboration
- SPED 4400 - Universal Design for Learning (UDL)
- SPED 4500 - Transition and Secondary Methods in Special Education
- SPED 4740 - Intersections of Literacy, Culture, \& Exceptionality
- SPED 4780 - Literacy Intervention for Exceptional Learners
- UEDU 4040 - Exploring Diversity in Content and Pedagogy I
- UEDU 4931 - Internship \& Lrng Comm I
- UEDU 4932 - Internship \& Lrng Comm II
- UEDU 4933 - Internship \& Lrng Comm III

Additional General Electives hours may be needed to reach the required 125 hours for the BA.

## Electrical Engineering BS

## Introduction

Please click here to see Electrical Engineering department information.

## Program Objectives

The educational objectives of the electrical engineering undergraduate program are to produce graduates who, within a few years of graduation, will:

- Demonstrate professional advancement as productive practicing engineers who continuously develop their technical expertise, as demanded by the rapidly changing technologies.
- Attain enhanced and broadened knowledge via graduate education in either engineering or other fields such as science, mathematics, business, medicine, and law.
These objectives are consistent with the mission of the University of Colorado Denver, congruent with the goals of the College of Engineering and Applied Science and reflective of the mission of the Department of Electrical Engineering.


## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Engineering and Applied Science Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. The particular curriculum to be satisfied by each student is the one published in the catalog current at the time of his/her 30 -hour senior checkout.
2. A graduation agreement should be requested by each student before completing registration for his/her last semester.
3. All electrical engineering students must satisfactorily complete ELEC 4309, Senior Design Project I, and ELEC 4319, Senior Design Project II, in consecutive semesters.
4. Students must maintain a minimum 2.0 GPA in all courses applying to major requirements.
5. Students must maintain a minimum 2.0 GPA in all ELEC courses attempted.

Take all of the following Electrical Engineering courses:

- 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 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 4309 - Senior Design Project I
- ELEC 4319 - Senior Design Project II
- ENGR 3400-Technology and Culture

Take two Professional Elective courses. Professional electives may be selected from an approved list of upper-division or graduate-level courses or cooperative education. The electrical engineering advisor must be consulted prior to the selection of these electives.

Take one of the following Engineering Science Elective courses:

- MECH 3012 - Thermodynamics
- ELEC 4678 - Quantum Electronics
- ELEC 4755 - Renewable Energy Systems

Take seventeen semester hours from the following lists. At least two laboratories with an associated lecture course must be completed.

## Control Systems

- ELEC 4136 - Control Systems Analysis
- ELEC 4276 - Digital Control Systems
- ELEC 4406 - Control Systems Laboratory
- ELEC 4466 - Adaptive Control System Design

Micro-electronics and VLSI

- ELEC 4005 - IC Design
- ELEC 4025 - Device Electronics
- ELEC 4225 - Advanced Electronics
- ELEC 4435 - Advanced Electronics Laboratory
- ELEC 4555 - VLSI Circuit Simulation


## Communications

- ELEC 4247 - Communication Theory
- ELEC 4248 - Digital Communication Systems
- ELEC 4467 - Communications Laboratory

Fields, Waves and Optics

- ELEC 4133 - Advanced Electromagnetic Fields
- ELEC 4134 - Introduction to Microwave Circuit Design
- ELEC 4333 - Introduction to Computational Electromagnetics
- ELEC 4373 - Optical Engineering
- ELEC 4423 - Radio Frequency Laboratory
- ELEC 4678 - Quantum Electronics

Computer Engineering and Embedded System Design

- ELEC 4501 - Microprocessor Based Design
- ELEC 4511 - Hardware-Software Interface
- ELEC 4521 - Microprocessor Laboratory
- ELEC 4561 - Hardware-Software Lab
- ELEC 4723 - High Performance Computer Architecture

Energy and Power Systems

- ELEC 4164 - Electric Drive Systems
- ELEC 4170 - Electric Drive Systems Laboratory
- ELEC 4174 - Power Electronic Systems
- ELEC 4184 - Power Systems Analysis
- ELEC 4444 - Power Systems Laboratory
- ELEC 4474 - Power Electronics Laboratory
- ELEC 4755 - Renewable Energy Systems

Take all of the following Mathematics courses:

- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 2421 - Calculus III
- MATH 3195 - Linear Algebra and Differential Equations

Take all of the following Science courses:

- CHEM 1130 - Engineering General Chemistry *
- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I
- PHYS 2331-General Physics II: Calculus-Based
- PHYS 2341 - General Physics Lab II (optional)
*ENGR 1130 is an acceptable substitute for CHEM 1130


## English Writing BA

## Introduction

Please click here to see English department information.
Especially designed for future writers, the writing major offers a wide range of intensive writing experiences combining such areas as rhetoric, professional, general and creative writing.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus and online program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. Students majoring in English Writing must present a total of 39 hours in the major (excluding ENGL 1010, 1020 and 2030), of which 27 hours must be earned in upper-division courses.
2. None of the required 39 hours may be taken on a pass/fail basis.
3. Only courses completed with a grade of $\mathrm{C}(2.0)$ or above may be counted toward the major.
4. At least 15 upper-division hours of the student's work in writing must be taken from English faculty at CU Denver.
5. Internship/cooperative education courses may be counted toward the major (up to 6 hours) for students who have completed over 60 credit hours overall (junior standing or higher).
Take all of the following required courses:

- ENGL 2060 - Introduction to Writing Studies
- ENGL 3084 - Multimedia Composition
- ENGL 3160 - Language Theory or
- ENGL 4080 - History of English Language
- ENGL 4190 - Special Topics in Rhetoric and Writing
- ENGL 4830 - Advanced Rhetorical Analysis

Take three of the following courses:

- ENGL 2070 - Grammar, Rhetoric and Style
- ENGL 3154-Technical Writing
- ENGL 3160 - Language Theory (if not taken above)
- ENGL 3170 - Business Writing
- ENGL 4180 - Argumentation and Logic
- ENGL 4190 - Special Topics in Rhetoric and Writing * *repeatable if topics are different
- ENGL 4280 - Proposal and Grant Writing
- ENGL 4601 - Principles and Practices of Second Language Acquisition
- ENGL 4651 - Second Language Writing

Interdisciplinary Language, Literacy and Digital Media
Students may choose any language, literacy and/or digital media course within the English department. With prior approval from an English advisor, students may also choose courses offered by other departments up to 9 hours.

Take five Interdisciplinary Language, Literacy and Digital Media courses at the 3000 or 4000-level.

## English, Creative Writing Option BA

## Introduction

Please click here to see English department information.
The course of study offered by the Department of English is designed to develop a student's ability to read literature responsibly and imaginatively, to foster an understanding and appreciation of our literary inheritance and to provide the historical perspective from which to evaluate contemporary writing and to produce it. Students who complete the program in English are expected to have mastered the ability to express their ideas in creative work.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major
- Students planning to major in English must consult with an advisor as soon as possible.
- Students may choose only one of the three options in the English major.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the 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
- Click here for information about Academic Policies


## Program Requirements

1. Students majoring in English must present a total of 39 hours in the creative writing option (excluding ENGL 1010, 1020 and 2030), of which 27 hours must be earned in upper-division courses.
2. None of the required 39 hours may be taken on a pass/fail basis.
3. Only courses completed with a grade of $C$ (2.0) or above may be counted toward the major.
4. At least 15 upper-division hours of the student's work in English must be taken from English faculty at CU Denver.
5. Internship/cooperative education courses may be counted toward the major for students who have completed over 60 credit hours.
6. Students are not to exceed 56 English credit hours (any level).

Take the following required course:

- ENGL 2450 - Introduction to Literature

Complete the following poetry or fiction section:
--Poetry Track--

Take all of the following courses:

- ENGL 3020 - Poetry Workshop
- ENGL 3050 - Fiction Workshop
- ENGL 4025 - Advanced Poetry Workshop
- ENGL 4160 - Poetics
- ENGL 4820 - Senior Poetry Workshop

Take one of the following courses:

- ENGL 4080 - History of English Language
- ENGL 4166 - History of American Poetry
- ENGL 4320 - History of Poetry in English
- ENGL 4800 - Special Topics in Creative Writing
--Fiction Track--
Take all of the following courses:
- ENGL 3020 - Poetry Workshop
- ENGL 3050 - Fiction Workshop
- ENGL 4055 - Advanced Fiction Workshop
- ENGL 4610 - Narrative: Form and Theory
- ENGL 4850 - Senior Fiction Workshop

Take one of the following courses:

- ENGL 4200 - History of the English Novel I
- ENGL 4210 - History of the English Novel II
- ENGL 4230 - The American Novel
- ENGL 4236 - The American Short Story
- ENGL 4800 - Special Topics in Creative Writing

Take six upper-division English electives (choose from the following list or other ENGL courses at the 3000 or 4000level):

- ENGL 3001-Critical Writing
- ENGL 3106 - Sentry Practicum
- ENGL 3416 - Magazine Writing
- ENGL 4800 - Special Topics in Creative Writing
- ENGL 4810 - Literary Editing Practicum


## English, Film Studies Option BA

## Introduction

Please click here to see English department information.
The film studies option within the English major is designed to prepare students for a range of professional careers in areas such as screenwriting, film criticism, video production and the teaching of film, as well as those students who plan to pursue graduate programs in film studies. Required courses give students a strong grounding in film history, verbal and visual narrative, and the critical terms and techniques used in both film and literary analysis. Electives give students the option of emphasizing either the creative approach or the critical approach to movingimage media, or a combination of the two. The film studies option also affords students the opportunity to create video productions using state-of-the-art digital video and editing equipment and the possibility of airing their productions on cable TV. Offered in cooperation with the College of Arts \& Media (CAM), the film studies option can be completed entirely on the Auraria Campus.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major
- Students planning to major in English must consult with an advisor as soon as possible.
- Students may choose only one of the three options in the English major.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the 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
- Click here for information about Academic Policies


## Program Requirements

1. Students majoring in English must present a total of 39 hours in the film studies option (excluding ENGL 1010, 1020 and 2030), of which 27 hours must be earned in upper-division courses.
2. None of the required 39 hours may be taken on a pass/fail basis.
3. Only courses completed with a grade of $C$ (2.0) or above may be counted toward the major.
4. At least 15 upper-division hours of the student's work in English must be taken from English faculty at CU Denver.
5. Internship/cooperative education courses may be counted toward the major for students who have completed over 60 credit hours.
6. Students are not to exceed 56 English credit hours (any level).

Take all of the following courses:

- ENGL 2250 - Introduction to Film
- ENGL 2450 - Introduction to Literature
- ENGL 3070 - Film History I
- ENGL 3080 - Film History II
- ENGL 4420 - Film Theory and Criticism (note: students should complete 3070 or 3080 prior to enrolling in 4420)

Take eight of the following courses:
*Students may take courses in all areas. Eighteen of the 24 -hour minimum must be at the 3000/4000 level. Production courses must be taken through the College of Arts \& Media (CAM). Equivalent screenwriting courses may also be taken through CAM. [Courses marked by an asterisk are repeatable if taken as a different genre/director/topic.]

## --Critical Studies--

- ENGL 1601 - Telling Tales: Narrative Art in Literature and Film
- ENGL 3001 - Critical Writing
- ENGL 3075 - Film Genres *
- ENGL 3085 - Film Directors *
- ENGL 3200 - From Literature to Film
- ENGL 3300-Topics in Film *
- ENGL 4190 - Special Topics in Rhetoric and Writing * (film and media-focused only; e.g., Film and Rhetoric)
- ENGL 4770 - Topics in English: Film and Literature * (film-focused only; e.g. Recent International Cinema)
- ENGL 4990 - Senior Writing Project in Creative Writing or Film Studies
- Any 3000- or 4000-level literature course with ENGL prefix


## --Screenwriting--

- ENGL 2390 - Writing the Short Script
- ENGL 2415 - Introduction to Movie Writing
- ENGL 3415 - Screenwriting Workshop
- ENGL 4990-Senior Writing Project in Creative Writing or Film Studies
--Production--
- FITV 1040 - Lighting, Grip, and Sound Introductory Workshop
- FITV 1050 - Production I Basics of Film and Television
- FITV 2050 - Production II Film and Television Techniques


## English, Literature Option BA

## Introduction

Please click here to see English department information.
The course of study offered by the Department of English is designed to develop a student's ability to read literature responsibly and imaginatively, to foster an understanding and appreciation of our literary inheritance and to provide the historical perspective from which to evaluate contemporary writing. Careful study of the use of the English language also should help a student to resist the misuse and corruption of language in politics, the media and elsewhere. Students who complete the program in English are expected to have mastered the ability to express their ideas in clear and succinct prose.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major
- Students planning to major in English must consult with an advisor as soon as possible.
- Students may choose only one of the three options in the English major.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the 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
- Click here for information about Academic Policies


## Program Requirements

1. Students majoring in English must present a total of 39 hours in the literature option (excluding ENGL 1010, 1020 and 2030), of which 27 hours must be earned in upper-division courses.
2. None of the required 39 hours may be taken on a pass/fail basis.
3. Only courses completed with a grade of $C(2.0)$ or above may be counted toward the major.
4. At least 15 upper-division hours of the student's work in English must be taken from English faculty at CU Denver.
5. Internship/cooperative education courses may be counted toward the major for students who have completed over 60 credit hours.
6. Students are not to exceed 56 English credit hours (any level).

Take all of the following courses:

- ENGL 2450 - Introduction to Literature
- ENGL 3001-Critical Writing
- Any 4000 level ENGL course

Take one of the following courses:

- ENGL 4080 - History of English Language
- ENGL 4166 - History of American Poetry
- ENGL 4200 - History of the English Novel I
- ENGL 4210 - History of the English Novel II
- ENGL 4230 - The American Novel
- ENGL 4236 - The American Short Story
- ENGL 4300 - History of British Drama
- ENGL 4320 - History of Poetry in English
- ENGL 4350 - History of American Drama

Take one of the following courses:

- ENGL 4400 - Old English I
- ENGL 4500 - Medieval Literature
- ENGL 4510 - Whores and Saints: Medieval Women
- ENGL 4730 - Chaucer

Take one of the following courses:

- ENGL 3661 - Shakespeare
- ENGL 4520 - English Renaissance
- ENGL 4530 - Milton
- ENGL 4540 - Restoration and the 18th Century

Take one of the following courses:

- ENGL 4200 - History of the English Novel I
- ENGL 4210 - History of the English Novel II
- ENGL 4560 - English Romanticism
- ENGL 4580 - The Victorian Age

Take one of the following courses:

- ENGL 3700 - American Literature to the Civil War
- ENGL 3750 - American Literature after the Civil War
- ENGL 4166 - History of American Poetry
- ENGL 4230 - The American Novel
- ENGL 4236 - The American Short Story
- ENGL 4350 - History of American Drama

Take one of the following courses:

- ENGL 3450 - Twentieth Century Women Writers
- ENGL 3480 - Modern Drama
- ENGL 4250 - Twentieth Century Fiction
- ENGL 4460 - Contemporary World Literature
- ENGL 4600 - Modernism

Take four elective courses with an ENGL prefix. At least two courses must be at the 3000 or 4000 -level.

## Entrepreneurship Major - BS in Business Administration

## Introduction

The Jake Jabs Center's entrepreneurship curriculum incorporates instruction, mentoring, and support from outstanding Business School faculty, as well as from outside professionals with expertise in new business development. This major explores legal issues, social sector initiatives, new venture design, finance structuring, strategic web development, leadership, new product development and business plan creation. Students learn from case studies, classroom instruction, and guest lectures featuring successful entrepreneurs and renowned business leaders.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a 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 Requirements
- Business School Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

Take all of the following required courses:

- ENTP 3000 - Principles of Entrepreneurship or
- ENTP 3200 - Essentials in Entrepreneurship
- ENTP 3230 - Small Business Accounting and Finance
- ENTP 3780 - Preparing A Business Plan or
- ENTP 3299 - Business Planand Model Development

Take three 3000 or 4000-level ENTP electives.

## Ethnic Studies BA

## Introduction

Please click here to see Ethnic Studies department information.
The skills and knowledge that students gain while pursuing a BA degree with a Major in Ethnic Studies at CU Denver are transferable to a variety of careers. In common with other liberal arts graduates, those with a degree in ethnic studies will be trained in creative and critical thinking, complex reasoning, and effective communication. In addition, ethnic studies graduates will have cultural competency skills that are highly valued by employers, who serve increasingly diverse clientele. Other occupations that employ many ethnic studies graduates include: law, teaching, journalism, marketing, community organizing and social work. Ethnic studies graduates also find work in non-profit agencies and in federal, state, and local government agencies.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program with some courses offered online.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. All grades in ETST must be a C or above. Grades of C- or below DO NOT APPLY.
2. Students will complete a minimum of 33 credit hours in ethnic studies ( 21 required credit hours in ethnic studies, 12 elective credit hours in ethnic studies).
3. At least 16 credit hours must be at the 3000 lever or above. Take all of the following required courses:

- ETST 2000 - Introduction to Ethnic Studies
- ETST 2155 - African American History
- ETST 3108 - Chicano/a and Latino/a History
- ETST 3297 - Social History of Asian Americans
- ETST 3396 - History of the American Indian
- ETST 4960 - Senior Seminar in Ethnic Studies

Take one of the following courses:

- COMM 4221 - Research Methods: Qualitative
- ETST 4000 - Research Methods in Ethnic Studies
- PSCI 3011 - Research Methods
- SOCY 3111 - Research Methods

Take four Ethnic Studies Electives, courses include:

- 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 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 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 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 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 (if not taken above)
- 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 4995 - Travel Study


## Film and Television Emphasis, Theatre, Film and Television BFA

## Introduction

Please click here to see general Theatre, Film \& Video Production information.
The Department of Theatre, Film \& Video Production offers a Bachelor of Fine Arts (BFA) in Theatre, Film and Television with an emphasis in film and television. This BFA emphasis provides training at a professional skill level, culminating in a comprehensive review that requires successful completion of numerous film/TV projects, varying in styles from fiction to documentary. The emphasis is designed so that students will progress through the semesters as a cohort group. Undergraduates will not only work on their own projects but also will assist on group projects such as our episodic web series. Students will graduate with both a theoretical and historical perspective, as well as a hands-on experience in film and television production. This prepares students to begin their careers with entry-level positions in film or television, start their personal creative work or continue their studies in a graduate program. Consult the College of Arts \& Media at CAM@ucdenver.edu for more information.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.
- Students seeking this BFA emphasis should apply to the university and be accepted under the Theatre, Film, and Television BFA program. The Department of Theatre, Film \& Video Production strongly encourages fall admission and is working to develop a departmental application. Please contact CAM@ucdenver.edu for updates. Given the cohort nature of the program, students should be aware that failing to take courses in order and/or failing to earn the minimum required grade in any course may delay their graduation date.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Arts \& Media Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minimum grade of $\mathrm{C}(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C - (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
2. At least 24 of the major semester hours must be earned at CU Denver.

Take all of the following Film and Television Emphasis courses:

- FITV 1000 - Fundamentals of Visual Media
- FITV 1040 - Lighting, Grip, and Sound Introductory Workshop
- FITV 1550 - Scriptwriting 1 - Fiction
- FITV 1050 - Production I Basics of Film and Television
- FITV 1200 - Fundamentals of Television
- FITV 1600 - Writing Short Film:Non Fiction
- THTR 1110 - Production Design: Theatre, Film and Video
- FITV 2040 - Introduction to Digital Effects
- FITV 2090 - Production Management for Film and Television
- FITV 2220 - Acting for Film and Television
- FITV 2650 - Sound for Film and TV
- FITV 2050 - Production II Film and Television Techniques
- FITV 2570 - Directing for Film and Television
- FITV 2670 - Cinematography
- FITV 3050 - Production III: Junior Project
- FITV 3055 - Documentary Production
- FITV 3200 - Film History 1
- FITV 3500 - Writing for Episodic Television
- FITV 3060 - Editing for Film and Television
- FITV 3300 - Film History 2
- Either FITV 3040 - TV Studio Production or FITV 3090 - Producing Episodic Television
- FITV 4000 - Senior Thesis Production
- FITV 4010 - Senior Thesis Post-Production

Take three semester hours of upper-division Film and Television elective.
Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for a list of approved electives and more information about this emphasis.

## Finance Major - BS in Business Administration

## Introduction

Please click here to see Business School information.
The principal areas of study in finance are financial management in small and large businesses, investments, financial institutions, and international finance. The study of finance is intended to provide an understanding of fundamental theory and practice pertaining to finance, to make sound financial decisions. Students are taught to think logically about financial problems, so that they can formulate and implement value maximizing decisions and policies for the business. For this purpose, it is necessary to understand the importance of finance in the economy and the functions and purposes of monetary systems, credit, prices, money markets and financial institutions. Emphasis is placed on financial policy, management, control, analysis, and decision making.

The finance major provides the students with the skills to succeed in all areas of finance. Numerous job opportunities exist in the field of business finance and with financial institutions, mutual funds, securities firms, personal wealth management firms, and financial planning firms including positions involving an understanding and sale of securities.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a 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
- Business School Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students following this major must also take FNCE 4370 as their international studies course.
2. A grade of C or higher must be earned in all courses that are used as prerequisites. These are noted with an asterisk.
Take all of the following required courses:

- FNCE 3500 - Management of Business Capital *
- FNCE 3600 - Financial Markets and Institutions
- FNCE 3700 - Investment and Portfolio Management *
- FNCE 4500 - Corporate Financial Decisions *
- Choose four courses ( 12 semester hours) of 3000 or 4000 -level business electives.


## Financial Management Major - BS in Business Administration

## Introduction

Please click here to see Business School information.
The financial management major provides students with the skills needed to succeed in careers in financial management. The business community has affirmed that students need skills in both the accounting and finance areas. The financial management specialty incorporates knowledge of corporate financial management, financial institutions and markets, investments, financial accounting and managerial accounting, accounting information systems and information technology. Career opportunities include corporate financial management, finance/accounting positions with financial institutions and accounting positions that are not CPA-track. The major provides a solid finance and accounting background for other business positions as well.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Business School Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Financial Management students must complete FNCE 4370 - International Financial Management, to fulfill the International Studies requirement.
2. All courses with an asterisk must be completed with a C or higher.

- ACCT 3220 - Intermediate Financial Accounting I *
- ACCT 3230 - Intermediate Financial Accounting II
- ACCT 4054 - Accounting Systems and Data Processing * (Replaces ISMG 3000 in Business Core)
- ACCT 4410 - Income Tax Accounting
- FNCE 3500 - Management of Business Capital *
- FNCE 3600 - Financial Markets and Institutions
- FNCE 3700 - Investment and Portfolio Management *
- FNCE 4500 - Corporate Financial Decisions *
- RISK 3809 - Introduction to Risk Management

Note: Students should note that all finance, risk and accounting courses are not offered every semester. Students should take the ACCT 2200 and ACCT 2220 courses as soon as possible to avoid future problems in their schedules, since these are prerequisites for all courses in the specialization.

## Note

Students also have the option to complete a Financial Management major with a specialization in Information Systems. Click here to view this option.

## Financial Management Major - BS in Business Administration with Specialization in Information Systems

## Introduction

Please click here to see Business School information.

The Financial Management major with a specialization in Information Systems provides students with skills that they need to succeed in careers that bridge the fields of finance and information systems.

This specialty incorporates knowledge of financial management and markets, accounting and information systems and technology. This specialization provides the manager with knowledge of financial information systems, databases, risk management and accounting systems.

Job opportunities include positions that require knowledge of both financial management and business information systems and databases. The specialization provides a solid accounting/finance and information systems background for other finance specialist and business analyst positions as well.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Business School Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must also complete FNCE 4370 - International Financial Management , to fulfill the International Studies requirement.
2. All courses with an asterisk must be completed with a grade of C or higher.

Finance and Risk Management

Take all of the following courses:

- FNCE 3500 - Management of Business Capital *
- FNCE 3600 - Financial Markets and Institutions
- FNCE 3700 - Investment and Portfolio Management *
- FNCE 4500 - Corporate Financial Decisions *
- RISK 3809 - Introduction to Risk Management

Accounting

Take all of following courses:

- ACCT 3220 - Intermediate Financial Accounting I *
- ACCT 3230 - Intermediate Financial Accounting II
- ACCT 4054 - Accounting Systems and Data Processing *
(Replaces ISMG 3000 in Business Core)
- ACCT 4410 - Income Tax Accounting

Information Systems

Take all of the following courses:

- ISMG 3500 - Enterprise Data and Content Management
- ISMG 3600 - System Strategy, Architecture and Design
- ISMG 4780 - Accounting and Information Systems Processes and Controls
- ISMG 4900 - Project Management and Practice (Also fulfills BGEN Experiential Learning requirement)


## Note

Students should note that all finance, risk and accounting courses are not offered every semester. Students should take the ACCT 2200 and ACCT 2220 courses as soon as possible to avoid future problems in their schedules, since these are prerequisites for all courses in the specialization.

## French BA

## Introduction

Please click here to see Modern Languages department information.
Students wishing to improve their linguistic skills as well as their knowledge of Francophone literature and culture may choose this major.

The French program offers courses in advanced language, linguistics, literature, civilization, culture and business, all taught exclusively in French. A minor is also offered. All French majors are strongly encouraged to participate in a study abroad program. Please see your French department advisor for information about opportunities to include study abroad as part of your major.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- To be admitted to major status in French, students must have an overall GPA of C+ (2.3).
- Students presenting four years of high school French (Level IV) for admission to CU Denver must see a French advisor before enrolling in courses for the major.
- Click here to go to information about declaring a major


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. The minimum grade acceptable in a French course applied to a French major is $\mathrm{C}(2.0)$.
2. The grade point average in all courses applied to a French major at CU Denver must be 2.5 .
3. No courses taken on a pass/fail basis may be credited toward a French major.
4. All courses counting toward the French major must be taught in French (FREN 3200 does not count toward the major).
5. All students majoring in French must complete 30 semester hours of upper-division courses taught in French (3000-level or higher). A minimum of 18 of those semester hours must be taken from the faculty in French at CU Denver.
6. Courses taken at other institutions while a student is enrolled at CU Denver may be applied to the major only with departmental approval before enrollment in those courses.
7. Students with advanced placement credits from high school must see a French advisor about course equivalencies. The Department of Modern Languages does not accept CLEP credits.
8. Upon declaring a major in French, each student will be assigned to a faculty advisor with whom the student should consult at least once per semester thereafter. It is especially important that students have their
transcripts reviewed by their advisor before enrolling in their final 30 credit hours at CU Denver. Failure to do so may result in delay of graduation.
9. During their final semester in the language, French major students participate in an oral proficiency interview and take a written outcomes assessment exam to measure their level of proficiency and mastery of key concepts.

Take all of the following required courses:

- FREN 3010 - French Phonetics and Pronunciation
- FREN 3020 - Conversation through Film
- FREN 3050 - Advanced Grammar and Composition
- FREN 3060 - Advanced French Language Skills

Take three elective courses at the 4000 -level.
Take three elective courses at the 3000 or 4000 -level.

Note: Students must take at least one literature course and at least one culture or civilization course.

## Geography - BA

## Introduction

Please click here to see Geography and Environmental Sciences department information.

The Geography program (within the Department of Geography and Environmental Sciences) offers a BA degree that includes a full range of courses in the fundamentals of geography taught mainly by full-time faculty.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete a minimum of 24 hours of upper-division credit.
2. At least 15 semester hours must be taken at CU Denver.
3. Undergraduate students may count up to 6 credit hours of independent study (any combination of GEOG $3840,4840,4880$ ) towards elective credit in the major as approved by the undergraduate coordinator.
Students may not receive more than 3 credit hours per independent study section. No more than 3 credit hours of independent study may be taken with the same instructor or in the same term.
Take all of the following required courses:

- GEOG 1202 - Introduction to Physical Geography
- GEOG 1302 - Introduction to Human Geography
- GEOG 2080 - Introduction to Mapping and Map Analysis
- GEOG 3232 - Weather and Climate
- GEOG 3411 - Globalization and Regional Development
- GEOG 4080 - Introduction to GIS

Choose six additional courses, including at least one course from each of the following subfields:

## Physical Geography

- GEOG 3240 - Colorado Climates
- GEOG 3302 - Water Resources
- GEOG 4010 - Landscape Geochemistry
- GEOG 4020 - Earth Environments and Human Impacts
- GEOG 4240 - Applied Geomorphology
- GEOG 4270 - Glacial Geomorphology
- GEOG 4280 - Environmental Hydrology
- GEOG 4720 - Climate Change: Causes, Impacts and Solutions
- GEOG 4731 - Mountain Biogeography
- GEOG 4740 - Geography of Soils

Human Geography

- ENVS 1342 - Environment, Society and Sustainability
- GEOG 1602 - Urban Studies and Planning
- GEOG 2202 - Hazards to Disasters: Perception and Management
- GEOG 3401 - Geography of Food and Agriculture
- GEOG 3430-Geography of Tourism
- GEOG 3440 - Ecotourism
- GEOG 3450-Cultural Heritage and Tourism
- GEOG 3501 - Geography of Health
- GEOG 4265 - Sustainability in Resources Management
- GEOG 4335 - Contemporary Environmental Issues
- GEOG 4350 - Environment and Society in the American Past
- GEOG 4420 - The Politics of Nature
- GEOG 4440 - Science, Policy and the Environment
- GEOG 4450 - Urban Food and Agriculture: Perspectives and Research
- GEOG 4460 - Sustainable Urban Agriculture Field Study I
- GEOG 4640 - Urban Geography: Denver and the U.S.
- GEOG 4680 - Urban Sustainability: Perspectives and Practice
- GEOG 4710 - Disasters, Climate Change, and Health


## Regional Geography

- GEOG 1102 - World Regions Global Context
- GEOG 3100 - Geography of Colorado
- GEOG 3120 - Geography of Europe
- GEOG 3130 - Central America and the Caribbean
- GEOG 3140 - Geography of South America
- GEOG 3150 - Middle East
- GEOG 3160-Geography of China

Techniques for Geographical Analysis

- GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 4070 - Remote Sensing II: Advanced Remote Sensing
- GEOG 4081 - Cartography and Computer Mapping
- GEOG 4085 - GIS Applications for the Urban Environment
- GEOG 4090 - Environmental Modeling with Geographic Information Systems
- GEOG 4091 - Open Source Software for Geospatial Applications
- GEOG 4092 - GIS Programming and Automation
- GEOG 4095 - Deploying GIS Functionality on the Web
- GEOG 4220 - Environmental Impact Assessment
- GEOG 4230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 4235 - GIS Applications in the Health Sciences
- GEOG 4770 - Applied Statistics for the Natural Sciences

Community/Professional Experience (optional, but highly recommended)

- GEOG 3939 - Internship


## Geography - Environment, Society and Sustainability Option BA

## Introduction

Please click here to see Geography and Environmental Sciences department information.

The Geography program (within the Department of Geography and Environmental Sciences) offers a BA degree that includes a full range of courses in the fundamentals of geography taught mainly by full-time faculty.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the

College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete a minimum of 24 hours of upper-division credit.
2. At least 15 semester hours must be taken at CU Denver.
3. Up to 3 semester hours of honors thesis course work or up to 3 semester hours of internships may be counted toward the 18 hours of elective requirements. Such substitutions must be approved by a program option advisor.
4. Undergraduate students may count up to 6 credit hours of independent study (any combination of GEOG $3840,4840,4880 /$ GEOL $3840,4840,4880$ ) towards elective credit in the major as approved by the undergraduate coordinator. Students may not receive more than 3 credit hours per independent study section. No more than 3 credit hours of independent study may be taken with the same instructor or in the same term.
Take all of the following required courses:

- ENVS 1042 - Introduction to Environmental Sciences
- ENVS 1342 - Environment, Society and Sustainability
- GEOG 1302 - Introduction to Human Geography
- GEOG 2080 - Introduction to Mapping and Map Analysis
- GEOG 3232 - Weather and Climate
- GEOG 3411 - Globalization and Regional Development
- GEOG 4080 - Introduction to GIS

Take three of the following Environmental Studies courses:

- GEOG 3300 - Population, Culture, and Resources
- GEOG 3302 - Water Resources
- GEOG 3401 - Geography of Food and Agriculture
- GEOG 3440 - Ecotourism
- GEOG 3501 - Geography of Health
- GEOG 4335 - Contemporary Environmental Issues
- GEOG 4350 - Environment and Society in the American Past
- GEOG 4420 - The Politics of Nature
- GEOG 4450 - Urban Food and Agriculture: Perspectives and Research
- GEOG 4680 - Urban Sustainability: Perspectives and Practice
- GEOG 4720 - Climate Change: Causes, Impacts and Solutions

Take two of the following Environmental Policy and Planning courses:

- GEOG 4230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 4260 - Energy and Natural Resource Planning
- GEOG 4265 - Sustainability in Resources Management
- GEOG 4440 - Science, Policy and the Environment
- GEOG 4710 - Disasters, Climate Change, and Health

Take one of the following Techniques for Environmental Analysis courses:

- GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 4070 - Remote Sensing II: Advanced Remote Sensing
- GEOG 4081 - Cartography and Computer Mapping
- GEOG 4085 - GIS Applications for the Urban Environment
- GEOG 4090 - Environmental Modeling with Geographic Information Systems
- GEOG 4091 - Open Source Software for Geospatial Applications
- GEOG 4092 - GIS Programming and Automation
- GEOG 4095 - Deploying GIS Functionality on the Web
- GEOG 4235 - GIS Applications in the Health Sciences
- GEOG 4770 - Applied Statistics for the Natural Sciences

Community/Professional Experience (optional, but highly recommended)

- GEOG 3939 - Internship


## Geography - Environmental Science Education Option BA

## Introduction

Please click here to see Geography and Environmental Sciences department information.
The Geography program (within the Department of Geography and Environmental Sciences) offers a BA degree that includes a full range of courses in the fundamentals of geography taught mainly by fulltime faculty.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an oncampus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete a minimum of 24 hours of upperdivision credit.
2. At least 15 semester hours must be taken at CU Denver.
3. Undergraduate students may count up to 6 credit hours of independent study (any combination of GEOG 3840 , 4840, 4880/GEOL 3840, 4840, 4880/ENVS 3840, 4840, 4880) towards elective credit in the major as approved by the undergraduate coordinator. Students may not receive more than 3 credit hours per independent study section. No more than 3 credit hours of independent study may be taken with the same instructor or in the same term.
4. This Option is linked with the licensure requirements in the CLAS Individually Structured Major (ISM). By pursuing this combination, students can obtain a science major along with teacher licensure. Pursuing this combination requires early planning to navigate the combination efficiently and effectively; please see the option advisor for detailed information on how best to approach the degree combination.
Take all of the following required courses:

- BIOL 2051 - General Biology I
- BIOL 2061 - General Biology II
- BIOL 2071 - General Biology Laboratory I
- BIOL 2081 - General Biology Laboratory II
- MATH 2830 - Introductory Statistics
- ENVS 1042 - Introduction to Environmental Sciences
- ENVS 1342 - Environment, Society and Sustainability
- ENVS 4650 - Environmental Education
- GEOG 1202 - Introduction to Physical Geography
- GEOG 2080 - Introduction to Mapping and Map Analysis
- GEOG 3232 - Weather and Climate
- GEOG 3301 - Population, Culture, and Resources
- GEOG 3411 - Globalization and Regional Development
- GEOG 4020 - Earth Environments and Human Impacts or
- GEOG 4265 - Sustainability in Resources Management
- GEOG 4080 - Introduction to GIS

Take two of the following courses:

- GEOG 3240 - Colorado Climates
- GEOG 4010 - Landscape Geochemistry
- GEOG 4240 - Applied Geomorphology
- GEOG 4270 - Glacial Geomorphology
- GEOG 4280 - Environmental Hydrology
- GEOG 4720 - Climate Change: Causes, Impacts and Solutions
- GEOG 4731 - Mountain Biogeography
- GEOG 4740 - Geography of Soils
- GEOL 4030 - Environmental Geology

Take one upper-division Biology or Chemistry course related to the student's Environmental Science interest.

Take one of the following courses:

- ANTH 4050 - Quantitative Methods in Anthropology
- GEOG 4770 - Applied Statistics for the Natural Sciences
- MATH 4830 - Applied Statistics
- PSYC 2090 - Statistics and Research Methods
- SOCY 3121 - Statistics

Secondary Education Licensure
Secondary Education Licensure is not required for this BA program, but licensure is an option for those who wish to pursue a teaching career. Information about Secondary Education Licensure and specific requirements can be found here.

## Geography - Environmental Science Option BA

## Introduction

Please click here to see Geography and Environmental Sciences department information.
The Geography program (within the Department of Geography and Environmental Sciences) offers a BA degree that includes a full range of courses in the fundamentals of geography taught mainly by full-time faculty.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete a minimum of 24 hours of upper-division credit.
2. At least 15 semester hours must be taken at CU Denver.
3. Undergraduate students may count up to 6 credit hours of independent study (any combination of GEOG 3840, 4840, 4880/GEOL 3840, 4840, 4880/ENVS 3840, 4840, 4880) towards elective credit in the major as approved by the undergraduate coordinator. Students may not receive more than 3 credit hours per independent study section. No more than 3 credit hours of independent study may be taken with the same instructor or in the same term.
Take one general biology and one general chemistry course (both with labs), OR a sequence of either (BIOL 2051 and 2061 with labs or CHEM 2031 and 2601 with labs). If applying to the MS in Environmental Sciences program, students must have taken both sequences. Course choices with descriptions are below:

- BIOL 2051 - General Biology I and
- BIOL 2071 - General Biology Laboratory I
- BIOL 2061 - General Biology II and
- BIOL 2081 - General Biology Laboratory II
- CHEM 2031 - General Chemistry I and
- CHEM 2038 - General Chemistry Laboratory I
- CHEM 2061 - General Chemistry II and
- CHEM 2068 - General Chemistry Laboratory II

Take all of the following required courses:

- ENVS 1042 - Introduction to Environmental Sciences
- GEOG 1202 - Introduction to Physical Geography
- GEOG 1302 - Introduction to Human Geography or
- ENVS 1342 - Environment, Society and Sustainability
- GEOG 2080 - Introduction to Mapping and Map Analysis
- GEOG 3232 - Weather and Climate
- GEOG 3411 - Globalization and Regional Development or
- GEOG 4335 - Contemporary Environmental Issues
- GEOG 4080 - Introduction to GIS

Take both of the following Environmental Science courses:

- GEOG 4020 - Earth Environments and Human Impacts
- GEOG 4265 - Sustainability in Resources Management

Take one from the following courses:

- ENVS 3082 - Energy and the Environment
- GEOG 3240 - Colorado Climates
- GEOG 4010 - Landscape Geochemistry
- GEOG 4240 - Applied Geomorphology
- GEOG 4270 - Glacial Geomorphology
- GEOG 4280 - Environmental Hydrology
- GEOG 4720 - Climate Change: Causes, Impacts and Solutions
- GEOG 4731 - Mountain Biogeography
- GEOG 4740 - Geography of Soils
- GEOL 4030 - Environmental Geology

Take one upper-division Biology or Chemistry course related to the student's Environmental Science interest.

Take one of the following Quantitative Methods courses:

- ANTH 4050 - Quantitative Methods in Anthropology
- GEOG 4770 - Applied Statistics for the Natural Sciences
- MATH 2830 - Introductory Statistics
- PSYC 2090 - Statistics and Research Methods
- SOCY 3121 - Statistics

Take one of the following Geo-Spatial Analysis courses:

- GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 4085 - GIS Applications for the Urban Environment
- GEOG 4090 - Environmental Modeling with Geographic Information Systems
- GEOG 4091 - Open Source Software for Geospatial Applications
- GEOG 4092 - GIS Programming and Automation
- GEOG 4235 - GIS Applications in the Health Sciences

Community/Professional Experience (optional, but highly recommended)

- GEOG 3939 - Internship


## Geography - Urban Studies and Planning BA

## Introduction

Please click here to see Geography and Environmental Sciences department information.
The Geography program (within the Department of Geography and Environmental Sciences) offers a BA degree that includes a full range of courses in the fundamentals of geography taught mainly by full-time faculty.

Geography and urban and regional planning share a common concern for the spatial configuration of the places that we inhabit and enjoy. In recognition of this close association, there is currently an articulation agreement between the Department of Geography and Environmental Sciences and the College of Architecture and Planning that provides students with a mechanism for acceleration through the Master of Urban and Regional Planning (MURP) degree program, if accepted into that graduate program. Those students completing the requirements for an undergraduate planning minor may also be eligible to pursue an accelerated MURP degree and if interested in this option should work closely with the option advisor in the selection of coursework. (Please see the Graduate Catalog for more information on this graduate program.)

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete a minimum of 24 hours of upper-division credit.
2. At least 15 semester hours must be taken at CU Denver.
3. Undergraduate students may count up to 6 credit hours of independent study (any combination of GEOG $3840,4840,4880)$ towards elective credit in the major as approved by the undergraduate coordinator.

Students may not receive more than 3 credit hours per independent study section. No more than 3 credit hours of independent study may be taken with the same instructor or in the same term.
Take all of the following required courses:

- GEOG 1202 - Introduction to Physical Geography
- GEOG 1302 - Introduction to Human Geography
- GEOG 1602 - Urban Studies and Planning
- GEOG 2080 - Introduction to Mapping and Map Analysis
- GEOG 3232 - Weather and Climate
- GEOG 3411 - Globalization and Regional Development
- GEOG 4080 - Introduction to GIS

Take both of the following upper-division Urban Studies courses:

- GEOG 4640 - Urban Geography: Denver and the U.S.
- GEOG 4680 - Urban Sustainability: Perspectives and Practice

Take three of the following Urban Planning courses:

- GEOG 4000/ URPL 5010 - Planning Methods
- GEOG 4230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 4260/ URPL 6510 - Energy/Natural Res. Planning
- GEOG 4265 - Sustainability in Resources Management
- GEOG 4400 - Regional Economic Systems
- GEOG 4450 - Urban Food and Agriculture: Perspectives and Research
- GEOG 4630/ URPL 6550 - Transportation Planning/Policy
- GEOG 4670/ URPL 6555 - Transportation, Land Use, and the Environment
- GEOG 4710 - Disasters, Climate Change, and Health
- URPL 5000 - Planning History and Theory
- URPL 6300 - Community and Environmental Health Planning

Take one of the following Techniques for Urban Analysis courses:

- GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 4070 - Remote Sensing II: Advanced Remote Sensing
- GEOG 4081 - Cartography and Computer Mapping
- GEOG 4085 - GIS Applications for the Urban Environment
- GEOG 4090 - Environmental Modeling with Geographic Information Systems
- GEOG 4091 - Open Source Software for Geospatial Applications
- GEOG 4092 - GIS Programming and Automation
- GEOG 4095 - Deploying GIS Functionality on the Web
- GEOG 4235 - GIS Applications in the Health Sciences

Community/Professional Experience (optional, but highly recommended)

- GEOG 3939 - Internship


## History BA

## Introduction

Please click here to see History department information.
The bachelor's degree in history provides students with firm grounding for advanced studies in education, librarianship, law, business and public service, as well as graduate work in the humanities and social sciences broadly. History is an all-inclusive discipline, making it an excellent choice for students with a wide variety of career goals.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete a minimum of 36 credit hours of history course work, with at least 18 history hours taken at the University of Colorado Denver.
2. Majors must have at least 18 upper-division ( 3000 and 4000) history credit hours, of which 15 must be taken at the 4000 level, including HIST 4839-History Seminar or the equivalent as determined by the department.
3. Not more than 56 hours of history will be counted toward graduation requirements.
4. A student needs a cumulative grade point average of 2.5 or better in the major to graduate.
5. No courses with a grade below a C (2.0) will apply toward History major requirements.

Take all of the following required courses:

- HIST 3031 - Theory and Practice of History: An Introduction to the Major
- HIST 4839 - History Seminar

Students must complete HIST 3031 with a grade of C (2.0) or better before enrolling in HIST 4839.

Take a minimum of six semester hours in each of the following areas: United States, Europe and world (Africa, Asia, Latin America). At least three semester hours in each area must be upper-division (3000 and 4000 level).

Note: Please see your advisor for a list of acceptable elective courses.

## Human Development and Family Relations BS

## Introduction

Please click here to see School of Education \& Human Development information.
The Human Development and Family Relations (HDFR) Bachelor of Science program prepares students to effectively serve individuals and families in a wide variety of environments. HDFR is committed to a curriculum rich in family diversity and social justice. This 120 credit-hour interdisciplinary program explores family systems and the ecological development of individuals across their life span. The HDFR program leads to certification in the field.

## Program Delivery

- This is an on-campus program with a variety of delivery options for many of our courses including hybrid, evening, weekend and online courses.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a 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
- School of Education and Human Development Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete a total of 120 semester hours for the Human Development and Family Relations BS.
2. A minimum GPA of 2.3 is required for all courses applying to Human Development and Family Relations requirements.
3. Transfer courses must be approved by faculty and/or advisor to apply to the major.

Take all of the following Human Development and Family Relations major courses with a grade of C or better:

- EDFN 1000 - Equality, Rights \& Education
- HDFR 1010 - Life Span Development in Ecological Settings
- HDFR 2000 - Introduction to Family and Community Services
- HDFR 2200 - Love, Family and Human Development
- HDFR 3002 - Preparing to be a HDFR Professional
- HDFR 3250 - Families in Global Perspectives
- HDFR 3400 - Love, Couples and Family
- HDFR 4000 - Human Sexuality
- HDFR 4001 - Families and Parenting
- 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 4075 - Family Policy \& Law
- HDFR 4080 - Global Family Resource Management
- HDFR 4260 - Family Systems and Social Justice
- HDFR 4910 - Practicum
- MATH 2830 - Introductory Statistics
- RSEM 4100 - Research and Statistics in Families and Human Development

Take one of the following HDFR Family Diversity courses with a grade of C or better:

- HDFR 1020 - Black and Latino Children (renumbered to HDFR 1020)
- HDFR 1030 - Who am I? Cultural Identity, Family, Diverse Soc Sys
- HDFR 4040 - Latino Families in School and Communities
- HDFR 4045 - Abuelos (Grandparents) Latino Families
- HDFR 4888 - LGBTQ Family Systems

Take one of the following HDFR Human Development and Learning courses with a grade of C or better:

- HDFR 1000 - Global Human Development \& Learning
- HDFR 2110 - Child Ecology
- HDFR 3050 - Children's Thinking and Assessment
- HDFR 3100 - Adolescent Ecology
- HDFR 4200 - Adult Ecology


## HDFR Required Concentration Options

Select a 15 semester hour concentration area from those listed below

## Pre-individual, Couple and Family Therapy/Counseling:

Provides an introduction to clinical helping professions through systems and strengths therapy perspectives, and includes English and bilingual tracks.

- HDFR 3400 - Love, Couples and Family
- HDFR 4080 - Global Family Resource Management
- HDFR 4090 - Helping Profession Skills in HDFR
- *HDFR 4xxx - Family Therapy with Latinos
- Counseling Electives


## Leadership and Community-based Organizations:

Provides a comprehensive understanding and preparation for students to work in and lead community-based organizations including secular, faith-based, for-profit, nonprofit, school-based, state, federal and international organizations.

- HDFR 4002 - Family Life and Community Programming I
- HDFR 4003 - Leadership and Organizations
- HDFR 4004 - Family and Comm. Prog. II Grant Writing/Fundraising
- HDFR 4080 - Global Family Resource Management
- One additional HDFR course in leadership and organizations


## Higher Education Environments (Pre-Higher Education and Student Affairs):

Provides students with an introduction to higher education and student affairs administration and possible careers at various universities, community colleges and liberal arts colleges.

- HDFR 4050 - Foundations of Student Affairs
- HDFR 4003 - Leadership and Organizations
- HDFR 4500 - Diversity, Inclusion, Social Justice in Higher Education
- *HDFR 3xxx - Introduction to Higher Education
- *HDFR/HESA course


## Educational Foundations and Social Justice:

Provides students with a foundation to understand justice within familial, educational and community settings. This concentration works well with the previously listed concentrations and is also offered in an English and a bilingual track.

- EDFN 1000 - Equality, Rights \& Education
- EDFN 3000 - Undocumented Mexican Immigration
- EDFN 4000 - Food Justice in City \& Schools
- Two additional EDFN courses selected in consultation with faculty advisor


## Early Childhood Development:

- ECED 2930 - Infant \& Toddler Field Experience \& Seminar
- ECED 4030 - Nutrition, Health, and Safety
- ECED 4060 - Working with Families, Professionals, and Communities
- ECED 4070 - Development and Education of Infant and Toddlers
- ECED 4202 - Classroom Management


## Bilingual (Spanish) Family and Community Services:

Provides students with the linguistic ability to work with Spanish-speaking families and communities. Courses will be delivered in 70 percent Spanish and 30 percent English. Students in this concentration will also be able to complete any of the other concentrations in the program.

- HDFR 2110 - Child Ecology
- HDFR 4040 - Latino Families in School and Communities
- HDFR 4045 - Abuelos (Grandparents) Latino Families
- *HDFR 4xxx - Family Therapy with Latinos
- HDFR Bilingual Elective


## Family Gerontology:

Provides students with an ecological understanding of culturally and linguistically diverse families in later life. This concentration provides students with insight about individuals' age in families and the community. It also exposes students to promising practices for better serving older adults.

- HDFR 4045 - Abuelos (Grandparents) Latino Families
- HDFR 4200 - Adult Ecology
- *HDFR 4xxx - Understanding Family Systems in Later Life, 2
- *HDFR Family Gerontology Elective
- Existing course in sociology, nursing or other social sciences approved by advisor
*Courses to be developed are indicated with an asterisk
**Must be approved by your advisor

Second HDFR Concentration or Approved Minors Listed Below
Select an approved minor and complete 15 credit hours.

- Sociology
- Spanish
- Criminal Justice
- Psychology
- Women and Gender Studies
- Other minors based on the student's interest and career goals and approved by faculty advisor **Must be approved by your advisor


## Human Resources Management Major - BS in Business Administration

## Introduction

Please click here to see Business School information.

Human Resources Management offers opportunities for students to develop professional competence in the areas of personnel administration and development. Students acquire an understanding of, and skills in, developing and implementing human resources systems, including recruitment, selection, evaluation, training, motivation and compensation.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Business School Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

Take the following required course:

- MGMT 3010 - Managing People for a Competitive Advantage

Take two of the following courses:

- 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

Take three of the following:

- One-three upper level MGMT electives
- MKTG 4050 - Applied Marketing Management
- ENTP 3000 - Principles of Entrepreneurship or
- ENTP 3200 - Essentials in Entrepreneurship
- ENTP 3500 - Entrepreneurship Law and Ethics


## Illustration Emphasis, Fine Arts BFA

## Introduction

Please click here to see general Visual Arts information.
Illustrators tell stories, express ideas and communicate through visual art. The profession spans a wide range of applications, encompassing graphic novels, scientific illustration, visual development for animation and games, children's books, interactive illustration and anything an illustrator can bring to life. The field includes editorial, advertising and product illustration. Given the vast array of opportunities, today's illustrators must understand how to communicate effectively with a chosen medium and situate their work professionally within a particular market.

Students in the illustration emphasis receive instruction in conceptual illustration, digital illustration, rendering, perspective, painting, exhibition preparation, professional practices and the use of various artistic and illustration techniques. In preparation for a professional illustration career, the course work allows students to master numerous essential digital and traditional tools.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.
- Students who are applying for entrance into the illustration emphasis must submit a portfolio, as described below. The illustration emphasis accepts applications twice a year. Students who meet the requirements and are accepted go on to take upper-division illustration courses.


## ELIGIBILITY

## University of Colorado Denver Students

The student has completed, or is in the process of completing, the following courses:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2155 - Introduction to Digital Photography
- FINE 2405 - Introduction to Digital Design
- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II

A minimum cumulative fine arts/art history GPA of 2.75

## Transfer Students

The student has completed and is transferring a minimum of 24 credit hours from a previous institution.
Student has completed, or is in the process of completing, the equivalents of the following courses:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2405 - Introduction to Digital Design
- FINE 2600 - Art History Survey I

A minimum cumulative fine arts/art history GPA of 2.75

## PORTFOLIO APPLICATION REQUIREMENTS

Students applying to the illustration emphasis submit a portfolio of 10 images in digital format, a written statement and unofficial transcript(s) from CU Denver and all previous post-secondary educational institutions. Application materials must be uploaded to SlideRoom.com by November 1 or April 1 at 5:00 pm (Mountain Time). The November 1 application deadline is strongly recommended. Applications are only accepted online and must be formatted to the specifications listed below. There is a $\$ 30$ fee to apply.

## Portfolio of Images

- The portfolio must include a minimum of 10 digital images of creative work (but no more than 15). Submit six or more images of artworks done in FINE 1100 Drawing I, FINE 1400 TwoDimensional Design, FINE 1500 Three-Dimensional Design and FINE 2405 Introduction to Digital Design. Artwork examples should demonstrate skill in observational drawing, linear perspective and life drawing, as well as an understanding of design principles. Additional examples (up to five) may be in the form of design, drawing, painting, photography, mixed media and/or printmaking.
- All images should be formatted as JPEGs. Limit file size to 1 megabyte. File names must be numbered, include the student's last name, and then an underscore and a brief title.


## File Name Examples:

- 1_lastname_figuredrawing.jpeg
- 2_lastname_still-lifedrawing.jpeg

Note: For each image uploaded to SlideRoom, the applicant must provide the following information: title, year, media and size, the name of the course for which it was created (if applicable) and a brief explanation of the artwork.

## Written Statement

A written statement must be uploaded as a PDF file with the portfolio on SlideRoom. In the essay, the student should address the following questions in no more than one page in length (400-500 words).

- Why do you want to study illustration and what goals and expectations do you have regarding a career as an illustrator?
- What are your creative strengths, and what areas need further development?
- What other accomplishments would you like the committee to know about, such as Dean's List, GPA, internships, art-related extracurricular activities or relevant professional experience?


## Course Transcripts

These may be official or unofficial transcripts from CU Denver and previous post-secondary institutions. The CU Denver transcript must show any current semester courses.

## THE EVALUATION PROCESS

- A committee of painting, drawing and illustration faculty members reviews the application materials. Acceptance into the illustration emphasis is based on the portfolio images, written statement and GPA.
- If not admitted into the illustration emphasis, a student has the choice of attempting the review process again in a later semester or applying to another emphasis. Students are encouraged to apply for more than one emphasis. Students are also encouraged to schedule a meeting with the area head of illustration to learn ways to improve their portfolios for future submissions.
Please note that there are minors in illustration and painting/drawing. Should students not get into their first choice emphasis area, there is the possibility of minoring in that area. These minors do not require portfolio review. To learn more, please link to these minors from the Programs page in this catalog.


## The application is evaluated on the following criteria:

- Presentation - The portfolio should be well-crafted and well organized in content and presentation.
- Technical Skill - The portfolio should demonstrate strong proficiency in drawing, composition, design and color.
- Creativity - The portfolio should demonstrate creative choices in content and aesthetics.
- Conceptual Skills - The portfolio and written statements should reflect analytical thinking and conceptual exploration of the foundations of drawing and design.
- Written Statement - The statement should outline academic and artistic goals, addressing any potential strengths and weaknesses.
- Academic Performance - The grades must reflect a commitment to learning and growth.
- Completeness of Application - All required documentation must be submitted (images, written statement and transcripts).


## QUESTIONS

For more portfolio information, please contact CAM@ucdenver.edu or illustration area head Melissa Furness at melissa.furness@ucdenver.edu.

## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Arts \& Media Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minimum grade of $\mathrm{C}(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C-(1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
2. All upper-division visual arts courses must be taken at CU Denver unless approved otherwise by Department of Visual Arts faculty.
3. At least 27 semester hours of visual arts credits (at any level) must be taken at CU Denver.
4. At least 24 semester hours of total visual arts courses must be upper-division. Take all of the following Pre-Portfolio courses:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2155 - Introduction to Digital Photography
- FINE 2405 - Introduction to Digital Design
- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II

Take all of the following lower-division Visual Arts courses:

- FINE 2010 - The Graphic Novel Workshop
- FINE 2030 - Life Drawing
- FINE 2200 - Painting I
- FINE 2415 - Typography Studio

Take all of the following Illustration Emphasis courses (to be taken after gaining acceptance to emphasis via portfolio review):

- FINE 3001 - Illustration I: Digital Media
- FINE 3002 - Illustration II: Spatial Thinking
- FINE 4001 - Illustration III: Conceptual Methods
- FINE 4002 - Illustration IV: Professional Practice
- FINE 4003 - Illustration V: BFA Thesis

Take all of the following upper-division Visual Arts courses:

- FINE 3260 - Portraiture
- Either FINE 3030 - The Media of Drawing or FINE 3300 - Painting, Drawing and the Printed Image
- FINE 3450 - Digital Painting
- FINE 4020 - Anatomy for the Artist
- FINE 4990 - Contemporary Art: 1960 to Present

Take three semester hours of Pre-20th Century Art History elective.

Take three semester hours of upper-division Art History elective.

Take three semester hours of Studio Arts elective in an area outside of painting, drawing or illustration.
Take three additional semester hours of Studio Arts elective.

Take six semester hours of Visual Arts electives. These may include studio, lecture, internship or art history courses.

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for lists of approved electives and more information about this emphasis.

## Individually Structured Major - Integrated Studies BA

The College of Liberal Arts and Sciences (CLAS) Integrated Studies option provides students with the opportunity to construct an individualized major that meets their unique needs, and which results in a B.A.

This flexible program allows students to create a major by combining two course clusters

- One cluster must be based on a CLAS minor in the CU Denver catalog. The minor must be at least 15 credits, and students can add additional courses from the discipline (up to 21 credits total in one discipline) to form the cluster.
- The other cluster can also be based on a minor in the catalog (within CLAS or another school or college), or it can be constructed by the student from a group of courses from a variety of disciplines that form a coherent body of knowledge (an interdisciplinary cluster)
- Students must also complete an introduction to interdisciplinary studies course as well as an interdisciplinary capstone course and project that bring together the learning from their two clusters These degree requirements are subject to periodic revision by CLAS, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their CLAS Academic Advisor to confirm the best plans of study before finalizing them.


## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.
- Students are required to submit a program plan that includes a proposal and a course contract. Copies of completed Integrated Studies option proposals and course contracts must be filed with the Dean's Office and with the student's CLAS Academic Advisor.
- The Integrated Studies option proposal must include
- Two chosen clusters (at least one of which must be based on a CLAS minor)
- If one of the clusters is constructed, an explanation of how the courses fit together to form a coherent body of knowledge
- Approval from an Associate Dean in CLAS
- The Integrated Studies option course contract must include
- A list of the courses the student intends to take or has completed in the chosen clusters, as well as potential alternate courses. The student should work closely with their CLAS academic advisor to create the course contract
- Signature from the student's CLAS Academic Advisor
- Signature from the appropriate CLAS Associate Dean


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Requirements
- College of Liberal Arts \& Sciences Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

- A student must have already completed at least 60 credit hours to declare the Integrated Studies option
- At least half of all credits in the Integrated Studies option must be from CLAS departments. A minimum of 24 Integrated Studies option credit hours must be completed with CU Denver faculty (at least 9 credits in each course cluster in addition to ISMA 3100 and ISMA 4900).
- Each course cluster in the major option must consist of at least 15 credit hours and one cluster must be based on a CLAS minor in the CU Denver catalog
- The major option requires a minimum of 36 credit hours, but can be up to 56 credit hours depending on the size of the clusters a student chooses and/or constructs
- At least 18 credit hours must be from 3000/4000 level courses, with at least nine upper division credit hours in each cluster
- Students can apply credits they earned before declaring the Integrated Studies option to the major


## Roles and Responsibilities

- creates the Integrated Studies option initial proposal and course contract (in collaboration with their CLAS Academic Advisor)
- meets regularly with their CLAS Academic Advisor to assess progress through the major, CLAS
graduation requirements and CU Denver graduation requirements
- fulfills requirements of the Integrated Studies course contract

CLAS Academic Advisor

- reviews Integrated Studies option proposal and overall course contract together with the student
- meets with Integrated Studies option advisees to monitor progress
- maintains records of Integrated Studies option proposals and contracts
- certifies graduation

Associate Dean

- approves student proposals and course clusters for Integrated Studies option majors
- signs off on Integrated Studies option course contracts
- may oversee advisee's capstone project
- may consult with student and other faculty on course clusters

Faculty Advisor

- may oversee advisees' capstone projects
- may consult with student and Associate Dean on course clusters


## Integrated Studies Coursework Requirements

Students must complete a minimum of 36 credit hours towards their Integrated Studies option of the Individually Structured Major. Each cluster must consist of at least 15 credit hours, and one cluster must be based on a CLAS minor in the CU Denver catalog.

## ISMA 3100: Learning Across Disciplines (3 credit hours)

This course introduces students to interdisciplinary thinking, methods, and writing. Examining a compelling issue chosen by the instructor (for example, hunger, human trafficking, healthcare reform, or war and PTSD), students will learn what kinds of questions require thinking beyond a single discipline, how interdisciplinary scholars combine the theories and methods of a variety of fields, and how to approach the challenges of interdisciplinary writing. The final project for ISMA 3100 requires students to combine the thinking, methods, and writing of at least two disciplines in an interdisciplinary project. Prerequisite: approval of ISM application (permission number).

Students may petition the appropriate Associate Dean to fulfill their introduction outside of ISMA 3100.

## ISMA 4900: Interdisciplinary Studies Capstone (3 credit hours)

ISMA 4900 brings together students who have been working on their individualized majors to share a capstone experience. The goal of the capstone is for students to put their interdisciplinary learning into action - whether through a traditional research project or an experiential learning project. All students must produce a final project
that demonstrates their abilities to pose an interdisciplinary question and synthesize the theories, methods, and analytical perspectives of their chosen disciplines to answer that question. While working with their Primary Faculty Advisors on their capstone projects, students meet to discuss their experiences and to get feedback from each other as their projects develop. Grades will be determined by the instructor of record in consultation with each student's Primary Faculty Advisor. Prerequisite: ISMA 3100 and Capstone proposal approved by faculty advisor.

Students may petition the appropriate Associate Dean to fulfill their capstones outside of ISMA 4900.

## Integrated Studies Policies and Procedures

- Integrated Studies students must be in good academic standing, with a GPA of 2.0 or greater overall to graduate.
- Students must achieve a minimum grade of C-in all courses to be counted toward the major.
- Once the Integrated Studies option course contract is filed, any changes to coursework must be approved by the student's CLAS Academic Advisor and resubmitted to the Associate Dean for approval
- In addition to ISMA 3100 and ISMA 4900, students must take at least 18 upper division credit hours (9 each in each course cluster).
- A minimum of 24 Integrated Studies option credit hours must be completed with CU Denver faculty (at least 9 credits in each course cluster in addition to ISMA 3100 and ISMA 4900).
- Students will not receive minors in any of the cluster areas used toward the Individually Structured Major Integrated Studies option, even if the requirements for the minor are met.


## Individually Structured Major - Interdisciplinary Studies BA

## Introduction

Please click here to see Individually Structured Major department information.
The College of Liberal Arts and Sciences Interdisciplinary Studies Major (ISM) provides students with the opportunity to construct an individualized major that meets their unique needs and interests, and which results in a B.A.. This flexible program allows students to follow academic pursuits that transcend traditional department or college boundaries, combining coursework from two, three, or even more academic units to explore a particular theme. An ISM tends to be more focused than traditional majors and should not be considered a default major for students uncertain about their course of study.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to general information about declaring a major
- In order to declare an Interdisciplinary Studies Major, students are required to submit a program plan that includes a proposal and a course contract. Students should aim to complete a program plan before the end of the sophomore year. The proposal should be approved before students have taken one-third of the classes listed in their course contracts. Copies of your completed ISM proposal and course contract must be filed with the Associate Dean for Diversity, Outreach and Initiatives and with your CLAS Academic Advisor.
- The ISM proposal must include
- A description of your chosen theme (see below for sample themes).
- An explanation of why the theme requires coursework that integrates multiple disciplines. You can choose a theme within interdisciplinary frameworks already established in CLAS but which do not offer BA degrees. These frameworks include Chinese Studies, Health Humanities, Law Studies, Religious Studies, Social Justice, Sustainability, and Women's and Gender Studies. You are also encouraged to create your own frameworks.
- An outline of specific learning objectives for the ISM (see below for sample learning objectives).
- Approval from the Associate Dean for Diversity, Outreach and Initiatives.
- Your ISM course contract must include
- A list of the courses in your chosen disciplines and the optional "grab bag" of courses that you intend to apply to your ISM, as well as potential alternate courses. You should work closely with the Associate Dean for Diversity, Outreach and Initiatives and faculty advisors in your chosen disciplines to create your course contract.
- Signatures from your chosen Primary Faculty Advisor from one of your main disciplines and signatures from Faculty Advisors from your other main disciplines. You do not need a faculty advisor for grab bag courses.
- Signature from your Academic Advisor.
- Signature from the Associate Dean for Diversity, Outreach and Initiatives.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Requirements
- College of Liberal Arts \& Sciences Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

The ISM program plan requires course work over two or three disciplines. A discipline is defined as a single department or program such as biology, ethnic studies or math. The ISM program plan must comply with the following policies:

1. ISM students must be in good academic standing, with a GPA of 2.0 or greater overall.
2. Students must achieve a minimum grade of $C$ in all courses to be counted for an ISM.
3. The ISM proposal should be approved before students have taken one-third of the classes listed in their course contracts.
4. Once the ISM course contract is filed, any changes to coursework must be approved by the student's Primary Faculty Advisor and resubmitted to the Associate Dean for Diversity, Outreach and Initiatives and to the student's CLAS Academic Advisor.
5. In addition to ISMA 3100 and ISMA 4900 (or pre-approved alternatives), students must take at least 18 upper division credit hours ( 9 each in Discipline 1 and Discipline II).
6. A minimum of 24 ISM credit hours must be completed with CU Denver faculty (at least 9 credits in each of your main disciplines).
7. Between 48 and 54 semester hours are allowed for the program plan.
8. A minimum of 30 semester hours must be completed in liberal arts and sciences course work.
9. A maximum of one discipline ( 15 credits) may be outside CLAS.
10. A third optional discipline may be a mixture of course work, excluding courses from the first and second disciplines.
11. An ISM title must be consistent with the academic theme and disciplines in the program plan.
12. Students may petition the Associate Dean for Diversity, Outreach and Initiatives to fulfill their introduction and capstone outside of ISMA 3100 and ISMA 4900.

## Roles and Responsibilities

Student

- creates the ISM proposal and course contract (in collaboration with faculty advisors)
- meets regularly with ISM Primary Advisor to assess progress through ISM
- fulfills requirements of ISM course contract

Associate Dean for Diversity, Outreach and Initiatives

- approves student proposals for ISM
- signs off on ISM course contracts
- maintains records of ISM applications
- certifies graduation

Primary Faculty Advisor

- approves ISM course contract
- meets with ISM advisees to monitor progress
- oversees advisees' capstone projects

Other Faculty Advisors

- approve course contract
- help with capstone projects when needed

CLAS Academic Advisor

- reviews overall course contract
- approves exempt core area


## ISM Coursework Requirements

Students must complete a total of between 48 and 54 credit hours towards their ISM.
ISMA 3100 - Learning Across Disciplines (3 credit hours)
This course introduces students to interdisciplinary thinking, methods, and writing. Examining a compelling issue chosen by the instructor (for example, hunger, human trafficking, healthcare reform, or war and PTSD), students
will learn what kinds of questions require thinking beyond a single discipline, how interdisciplinary scholars combine the theories and methods of a variety of fields, and how to approach the challenges of interdisciplinary writing. The final project for INST 3100 requires students to combine the thinking, methods, and writing at least two disciplines in an interdisciplinary project. Prerequisite: approval of ISM application (permission number).

Interdisciplinary Coursework (42-48 credit hours)
While the ISM requires students to take a minimum of 15 credit hours in each of two disciplines, students can fulfill the remainder of their credit hours by contracting with additional disciplines or by creating a "grab bag": choosing courses from a variety of disciplines that suit their ISM plan. Up to 15 credit hours for an ISM can come from outside of CLAS.

Sample breakdowns of what ISM coursework might look like:
Discipline I: 15 hours
Discipline II: 15 hours
Discipline III: 9 hours
Discipline IV: 9 hours
Total: 48 credit hours
Discipline I: 18 hours
Discipline II: 15 hours
"Grab Bag" from four disciplines: 12 hours
Total: 45 credit hours
Discipline I: 24 hours
Discipline II: 18 hours

## Total: 42 credit hours

ISMA 4900: Interdisciplinary Studies Capstone (3 credit hours)
Thgis course brings together students who have been working on their individualized majors to share a capstone experience. The goal of the ISM capstone is for students to put their interdisciplinary learning into action - whether through a traditional research project or an experiential learning project. All ISM students must produce a final project that demonstrates their abilities to pose an interdisciplinary question and synthesize the theories, methods, and analytical perspectives of their chosen disciplines to answer that question. While working with their Primary Faculty Advisors on their capstone projects, students meet to discuss their experiences and to get feedback from each other as their projects develop. Grades will be determined by the instructor of record in consultation with each student's Primary Faculty Advisor. Prerequisite: INST 3100 and Capstone proposal approved by faculty advisor. Students may petition the Associate Dean for Diversity, Outreach and Initiatives to fulfill their capstones outside of INST 4900.

## Examples

Examples of Interdisciplinary Studies Major themes could include:

- Global Health
- Victorian Studies
- Gender and Media
- Applied Sciences
- Urban Studies
- Consumers and Consumption
- Disability Studies
- Health and Sexuality
- Human Rights
- Human-centered design and innovation
- Food Studies
- Science, Technology, and Society
- Latin American Studies

An example course contract for Global Health could look like:
Discipline I: Anthropology
ANTH 1000 Anthropology: Past and Present OR ANTH 2102: Culture and the Human Experience
ANTH 3032 Anthropology of Health Care Policy
ANTH 3210 Urban Food Systems and Sustainability
ANTH 4080 Global Health Practice (Travel Study Course)
ANTH 4300 Migrant Health

Discipline II: Public Health
PBHL 2001 Introduction to Public Health
PBHL 3041 Health, Culture, and Society
PBHL 3070 Perspectives in Global Health
PBHL 3071 Global Topics in Sexual and Reproductive Health
PBHL 4020 Global Health: Comparative Public Health Systems

## Grab Bag

COMM 4500 Health Communication
ECON 4660 Health Economics
GEOG 3501 Geography of Health
HIST 4346 Medicine and Society: Ancients to the Present
SOCY 3440 Medical Sociology
Example of learning objectives for the ISM in Global Health:
Develop knowledge of current global health issues.

- Identify the theories, methods, and analytical perspectives of anthropology and public health to understand global health systems.
- Synthesize the theories, methods, and analytical perspectives of anthropology and public health, with input from other disciplines, to answer interdisciplinary questions.
- Communicate ideas effectively in writing and through speaking.
- Critically evaluate a variety of textual and statistical evidence.
- Demonstrate ethical approaches to studying a variety of cultural perspectives.


## Information Systems Major - BS in Business Administration (specializations available in Accounting, Finance, Human Resource Management, Management and Marketing)

## Introduction

Please click here to see Business School information.

The information systems program at the University of Colorado Denver is a nationally accredited program for students who want to design and implement effective solutions to meet organizational and management needs for information, control and decision making.

An information systems (ISMG) major draws on a diverse set of skills and strengths requiring creative and innovative thinking at the intersections of disciplinary knowledge and practice. Information systems students learn how information technology, effective teamwork and leadership and sound project management combine to enable innovation and change, to improve organizational agility and to add compete value. Courses require extensive hands-on projects, teamwork and use of high-end technology. A combination of technical skills gained in class work with broad based business process knowledge enables our graduates to be ideally situated to take leading roles in shaping the technology-based future of employers in the Rocky Mountain region and the nation.

## Undergraduate Options

The Business School at the University of Colorado Denver offers a bachelor of science in business administration where you may choose information systems as your primary core specialty:

- Information Systems, Bachelor of Science in Business Administration degree

Or you may choose to add an information systems specialization to another business discipline:

- Accounting with an Information Systems specialization
- Financial Management with an Information Systems specialization
- Management with an Information Systems specialization
- Marketing with an Information Systems specialization


## Career Opportunities

Careers in information systems continue to be one of the highest growth markets in the business world. A student completing the information systems program curriculum will be prepared for challenging careers as a business analyst, database analyst, Web content manager, project manager, IT consultant, and information auditing and compliance specialist. Employment possibilities include financial operations, health care, management consulting, service operations, transportation, and logistics and government.

Information systems is becoming the foundation of all business activities, and a solid understanding of the role of information systems in business and in the national and global economy is now critical for every business student. The information systems major focuses on effective use of information technology in business. You are equipped with logical and analytical thinking in all areas of business and a strong basis for continued career growth in a variety of growing professions. You will develop the technical skills, business know-how and administrative insights required for acquisition, deployment and management of IT resources and services development, operation and evolution of IS infrastructure for use in accounting, finance, marketing, management and other business processes.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Business School Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. The courses emphasize both team and individual work, allowing students to gain critical thinking skills, knowledge and experience to analyze, design, program, implement and use information.

Take all of the following courses:

- ISMG 2800 - Designing for the Web
- ISMG 3500 - Enterprise Data and Content Management
- ISMG 3600 - System Strategy, Architecture and Design
- ISMG 4700 - Business Data Communications and Networking
- ISMG 4900 - Project Management and Practice (also fulfills BGEN Experiential Learning requirement)

Take one of the following upper division programming courses:

- ISMG 4200 - Building Business Applications
- ISMG 4400 - Web Application Development

Take two of the following courses or, if following a specialization, select 2 courses from one of the specializations listed below:

- ACCT 4054 - Accounting Systems and Data Processing
- CSCI 2312 - Object Oriented Programming
- CSCI 2421 - Data Structures and Program Design
- ISMG 4200 - Building Business Applications (if not taken above)
- ISMG 4300 - Information Security and Compliance
- ISMG 4400 - Web Application Development (if not taken above)
- ISMG 4750 - Business Intelligence and Financial Modeling
- ISMG 4760 - Customer Relationship Management

Note: All Information Systems courses are not offered every semester.

## Accounting Specialization

Take two of the following courses:

- ACCT 3220 - Intermediate Financial Accounting I
- ACCT 3230 - Intermediate Financial Accounting II
- ACCT 4054 - Accounting Systems and Data Processing
- ACCT 4780 - Accounting and Information Systems Processes and Controls


## Finance Specialization

Take two of the following courses:

- FNCE 3500 - Management of Business Capital
- FNCE 3600 - Financial Markets and Institutions
- FNCE 3700 - Investment and Portfolio Management
- FNCE 4750 - Business Intelligence and Financial Modeling


## Human Resource Management Specialization

Take two of the following courses:

- MGMT 3010 - Managing People for a Competitive Advantage
- MGMT 4420 - Human Resources Management: Staffing
- MGMT 4430 - Human Resources Management: Training
- MGMT 4450 - Human Resources Management: Compensation
- MGMT 4770 - Human Resource Information Systems


## Management Specialization

Take two of the following courses:

- MGMT 4350 - Leading Organizational Change
- MGMT 4370 - Organization Design
- MGMT 4400 - Environments of International Business


## Marketing Specialization

Take two of the following courses:

- MKTG 3100 - Marketing Research
- MKTG 3200 - Buyer Behavior
- MKTG 4050 - Applied Marketing Management
- MKTG 4760 - Customer Relationship Management


## Notes

Students also have the opportunity to continue their education with an MS in Information Systems. The ISMG 4+1 program allows students to potentially complete the BS and MS degrees in as little as five years through substituting two graduate courses for two undergraduate courses. The graduate courses count towards both the BS and MS degrees.

If you are considering this $4+1$ program, contact your advisor immediately so that you can appropriately plan your coursework. Email undergrad.advising@ucdenver.edu

## International Business Major - BS in Business Administration

## Introduction

Please click here to see Business School information.
Increasingly, businesses are reorienting their thinking, planning and operations to capitalize on opportunities that exist in the world marketplace. Every phase of business is affected by this reorientation. For individuals with the appropriate skills, training and interest, international business provides excellent career opportunities.

The international business curriculum is designed to enhance and build on thorough training in basic business skills and to provide students with additional skills and knowledge appropriate to international business.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Business School Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

Take all of the following Foundation courses:

- MGMT 4370-Organization Design
- MKTG 4050 - Applied Marketing Management
- FNCE 4370 - International Financial Management

Take all of the following Major courses:

- INTB 4370 - International Financial Management
- INTB 4400 - Environments of International Business
*Note: an international field of study course (approved by petition) may substitute for INTB4400.
- INTB 4410 - Operations of International Business
- INTB 4200 - International Marketing

A second major in Business is highly recommended. In addtion, serious consideration should be given to advanced study of a foreign language and a minor in International Studies, offered by College of Liberal Arts and Sciences.

## International Studies BA

## Introduction

Please click here to see International Studies department information.

In a world where the forces of politics, commerce, culture, and technology are multifaceted and interconnected, the International Studies major provides students with a muchneeded global perspective. International Studies is an interdisciplinary liberal arts degree that prepares students for international careers and graduate study. The International Studies major offers students a deep understanding of complex international issues and the underlying drivers that are shaping our world. Employers seek the qualities of International Studies graduates: historical knowledge, research ability, crosscultural competence, teamwork and leadership experience, and the ability to analyze, model, and solve realworld problems. The INTS major provides students the methodological tools necessary to analyze various regions of the world and global issues from different academic disciplines. Students can take courses from departments including Anthropology, Business, Communication, Economics, Ethnic Studies, Geography, History, Modern Languages, Political Science, and Religious Studies, among others. This combination of coursework, flexibility, and customization provides International Studies majors a distinctive and valuable degree for today's world.

Degree requirements are subject to periodic revision by the academic program, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

International Studies students are expected to develop both a regional zone of expertise and thematic specialization. Students should choose courses from the introductory, zone, and theme lists that contribute to developing both a broad and deep understanding of international issues.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. 16 classes ( 48 credits) are required.
2. Students may transfer in a maximum of 24 credits.
3. A minimum grade of $C(2.0)$ is required for all major courses.
4. A minimum GPA of 2.5 is required for all courses listed in International Studies major requirements.
5. Students may use up to 6 internship credits toward International Studies graduation requirements.
6. Students may use up to 6 credits of independent study toward International Studies graduation requirements.
7. All International Studies majors must demonstrate proficiency in a language other than English. Nonnative English speakers may use English for their language proficiency. Language requirements may be fulfilled by successful completion of the fourth semester of a foreign language course sequence or by passing an equivalent proficiency exam. Two 2000level language courses may be used toward the major (but not for Zone or Focus Theme requirements). 3000 and 4000level language courses may be counted toward the Zone, Focus Theme, or other requirements. 1000level language courses cannot be counted toward the major but may be used to fulfill other graduation requirements.

Take all of the following introductory courses:

- INTS 2020 - Foundations of International Studies
- ECON 2012 - Principles of Economics: Macroeconomics
- PSCI 3042 - Introduction to International Relations
- HIST 4032 - Globalization in World History Since 1945
- COMM 4720 - Dynamics of Global Communication
- ANTH 2102 - Culture and the Human Experience

Take the following International Studies Capstone course:

- INTS 4990 - International Studies Capstone
(taken in the Fall of a student's final year of the program)

Take ten courses drawn from one Zone of Expertise and one Focus Theme:

- At least four courses from one Zone of Expertise. At least four courses from one Focus Theme.
- At least one High Impact course beyond the Capstone, e.g., global study, study abroad, internship, service learning, or independent study.
- Students must take courses in at least two different disciplines for both their Zone of Expertise and Focus Theme.
- Students who do not apply two 2000level language courses to their degree must use those two course slots for additional courses related to their chosen Zone of Expertise and/or Focus Theme.


## Zones of Expertise:

- Africa (SubSaharan; French or other relevant language) Asia (Chinese or other relevant language)
- Colonial, NeoColonial, \& PostColonial Worlds (English for nonnative speakers, French, German, Spanish, or other relevant language)
- Europe (English for nonnative speakers, French, German, Spanish, or other relevant language) Global (any language, English for nonnative speakers)
- Islamic World (Arabic or other relevant language) Latin America (Spanish or other relevant language)
- North America (English for nonnative speakers, French, Spanish, or other relevant language)


## Management Major - BS in Business Administration

## Introduction

Please click here to see Business School information.
The management curriculum provides the foundation for careers in supervision and general management in a wide variety of organizations. It develops skills in management practice through an understanding of general management principles, individual and group behavior, organizational change and design and human resources management.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Undergraduate Core Curriculum
- Business School Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

Take all of the following required courses:

- MGMT 3010 - Managing People for a Competitive Advantage
- MGMT 4330 - Mastering Management
- MGMT 4350 - Leading Organizational Change
- MGMT 4370 - Organization Design
- MKTG 4050 - Applied Marketing Management

Take two of the following courses:

- ENTP 3000 - Principles of Entrepreneurship or
- ENTP 3200 - Essentials in Entrepreneurship
- ENTP 3500 - Entrepreneurship Law and Ethics
- Or select any two 3000 or 4000 -level MGMT electives


## Note

Students also have the option to complete a management major with a specialization in Information Systems. Click here to view this option.

## Management Major - BS in Business Administration with specialization in Information Systems

## Introduction

Please click here to see Business School information.
The management curriculum provides the foundation for careers in supervision and general management in a wide variety of organizations. It develops skills in management practice through an understanding of general management principles, individual and group behavior, organizational change and design and human resources management. Information technology is the prime driver of business strategy. This specialization focuses on the strategic, technological, financial, and organizational issues involved with the effective management of information technology.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- Business School Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

Take all of the following required courses:

- MGMT 3010 - Managing People for a Competitive Advantage
- MGMT 4330 - Mastering Management
- MGMT 4350 - Leading Organizational Change
- MGMT 4370 - Organization Design
- MKTG 4050 - Applied Marketing Management
- ISMG 3500 - Enterprise Data and Content Management
- ISMG 3600 - System Strategy, Architecture and Design
- ISMG 4900 - Project Management and Practice (also fulfills BGEN Experiential Learning requirement)

Take two of the following courses:

- ENTP 3000 - Principles of Entrepreneurship or
- ENTP 3200 - Essentials in Entrepreneurship
- ENTP 3500 - Entrepreneurship Law and Ethics
- Or select any two 3000 or 4000-level MGMT electives


## Marketing Major - BS in Business Administration

## Introduction

Please click here to see Business School information.
Marketing is concerned with directing the activities of the organization toward the satisfaction of customer wants and needs. This involves understanding customers, identifying those wants and needs that the organization can best serve, guiding the development of specific products or services, planning and implementing ways to take products or services to the market, securing the customer's order and finally, monitoring customer response in order to guide future activities.

In most organizations, marketing is a major functional area that provides a wide variety of career opportunities in such fields as personal selling and sales management, advertising and sales promotion, public relations, marketing research, physical distribution, product management, market management, marketing information systems and retail management. Increasingly, career opportunities exist in service businesses and nonprofit organizations.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Business School Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

Take all of the following required courses:

- MKTG 3100 - Marketing Research
- MKTG 4050 - Applied Marketing Management

Take any six 3000 or 4000 -level and above MKTG prefixed courses, such as:

- MKTG 3200 - Buyer Behavior
- MKTG 3300 - Social Media in Business
- MKTG 4000 - Advertising
- MKTG 4200 - International Marketing
- MKTG 4220 - Asian Business Development and Marketing
- MKTG 4250 - Sports Marketing
- MKTG 4580 - International Transportation
- MKTG 4620 - Customer Service Strategies
- MKTG 4700 - Personal Selling and Sales Management
- MKTG 4720 - Internet Marketing
- MKTG 4760 - Customer Relationship Management
- MKTG 4780 - Preparing Business Plan
- MKTG 4950 - Special Topics

Note: Additional MKTG electives may be available. Please check the UCD Access course offerings each term.

## Note

Students also have the option to complete a Marketing major with a specialization in Information Systems. Click here to view this option.

## Marketing Major - BS in Business Administration with specialization in Information Systems

## Introduction

Please here here to see Business School information.
Marketing is concerned with directing the activities of the organization toward the satisfaction of customer wants and needs. This involves understanding customers, identifying those wants and needs that the organization can best serve, guiding the development of specific products or services, planning and implementing ways to take products or services to the market, securing the customer's order and finally, monitoring customer response in order to guide future activities.

In most organizations, marketing is a major functional area that provides a wide variety of career opportunities in such fields as personal selling and sales management, advertising and sales promotion, public relations, marketing research, physical distribution, product management, market management, marketing information systems and retail management. Increasingly, career opportunities exist in service businesses and nonprofit organizations.

Within a specialization in Information Systems students can complement their individual interests as well as prior education and work experiences.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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 Requirements
- Business School Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

Take all of the following required courses:

- MKTG 3100 - Marketing Research
- MKTG 4050 - Applied Marketing Management
- ISMG 3500 - Enterprise Data and Content Management
- ISMG 3600 - System Strategy, Architecture and Design
- ISMG 4760 - Customer Relationship Management
- ISMG 4900 - Project Management and Practice (also fulfills the BGEN Experiential Learning requirement)

Take any two 3000 or 4000 -level and above MKTG prefixed courses:

- MKTG 3200 - Buyer Behavior
- MKTG 3300 - Social Media in Business
- MKTG 4000 - Advertising
- MKTG 4200 - International Marketing
- MKTG 4220 - Asian Business Development and Marketing
- MKTG 4250 - Sports Marketing
- MKTG 4580 - International Transportation
- MKTG 4700 - Personal Selling and Sales Management
- MKTG 4720 - Internet Marketing
- MKTG 4760 - Customer Relationship Management
- MKTG 4950 - Special Topics


## Mathematics - Applied Option BS

## Introduction

Please click here to see Mathematical and Statistical Sciences department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete a total of at least 30 upper-division MATH semester hours (typically 10 courses).
2. Students must complete at least 15 upper-division semester hours in MATH in residence at CU Denver.
3. A grade of 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 both of the following Computer Science courses:

- CSCI 1410 - Fundamentals of Computing
- CSCI 1411 - Fundamentals of Computing Laboratory

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 3200 - Elementary Differential Equations
- MATH 3382 - Statistical Theory
- MATH 4310 - Introduction to Real Analysis I
- MATH 4650 - Numerical Analysis I
- MATH 4733 - Partial Differential Equations
- MATH 4779 - Math Clinic

Take two approved Mathematics electives (at least six semester hours) above the 3000 level, excluding 3040, 3195, $3511,3800,3999,4012,4013,4014$ and 4830.

Take three additional courses countable towards a major in the following subjects: Business, Biology, Chemistry, Computer Science, Economics, Geology or Physics. Other areas allowable on a case-by-case basis.

## Mathematics - Probability and Statistics Option BS

## Introduction

Please click here to see Mathematical and Statistical Sciences department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete a total of at least 30 upper-division MATH semester hours (typically 10 courses).
2. Students must complete at least 15 upper-division semester hours in MATH in residence at CU Denver.
3. A grade of 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 both of the following Computer Science courses:

- CSCI 1410 - Fundamentals of Computing
- CSCI 1411 - Fundamentals of Computing Laboratory

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 4387 - Applied Regression Analysis
- MATH 4810 - Probability

Take one of the following Mathematics courses:

- MATH 4779 - Math Clinic
- MATH 6330 - Workshop in Statistical Consulting

Take one of the following Probability and Statistics courses:

- MATH 4390 - Game Theory
- MATH 4394 - Experimental Designs
- MATH 4792 - Probabilistic Modeling
- MATH 5350-Mathematical Theory of Interest
- ECON 4030 - Data Analysis with SAS

Take two approved Mathematics electives (at least six semester hours) above the 3000 level, excluding 3040, 3195, 3511, 3800, 3999, 4012, 4013, 4014 and 4830.

Take three additional courses countable towards a major in one of the following subjects: Business, Biology, Economics, Health and Behavioral Sciences, Sociology. Other areas allowable on a case-by-case basis.

## Mathematics BS

## Introduction

Please click here to see Mathematical and Statistical Sciences department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete a total of at least 30 upper-division MATH semester hours (typically 10 courses).
2. Students must complete at least 15 upper-division semester hours in MATH in residence at CU Denver.
3. A grade of 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 both of the following Computer Science courses:

- CSCI 1410 - Fundamentals of Computing
- CSCI 1411 - Fundamentals of Computing Laboratory

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

Take one of the following Mathematics courses:

- MATH 4779 - Math Clinic
- MATH 4015 - Capstone Course for Secondary Teachers
- MATH 6330 - Workshop in Statistical Consulting

Take five approved Mathematics electives (at least fifteen semester hours) above the 3000 level, exluding 3040, 3195, $3511,3800,3999,4012,4013,4014$ and 4830.

## Mechanical Engineering BS

## Introduction

Please click here to see Mechanical Engineering department information.
The mechanical engineer is concerned with satisfying the needs of society using a combination of material, human and economic resources. Mechanical engineering covers a wide spectrum of activities in the engineering profession. These activities include the conversion and transmission of energy and associated power processes; the kinematic, dynamic, strength and wear considerations, as well as economic aspects of the development, design and use of materials, machines and processes; and the analysis, synthesis and control of entire engineering systems.

The program 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 a bachelor's degrees who within a few years of graduation are able to:

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

The mechanical engineering curriculum begins with a strong emphasis on mathematics, physics and chemistry. It continues with a concentration in engineering sciences, including solid and fluid mechanics; thermodynamics, heat and mass transport; materials; and systems analysis and control. It concludes with laboratory and design courses that demonstrate the ways in which scientific knowledge is applied in the design and development of useful devices and manufacturing processes.

The mechanical engineering program may be roughly subdivided into two-year groupings. In the first two years, the program emphasizes the fundamentals of mathematics and basic science that are essential for an understanding of most branches of engineering. In the last two years of the program, the curriculum emphasizes engineering science and design and provides technical electives in the following areas:

- thermodynamics
- heat transfer
- fluid mechanics
- solid mechanics
- motorsports engineering
- power
- bioengineering
- dynamics and controls
- computer-aided design and manufacturing
- thermomechanical systems
- composite materials


## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Engineering and Applied Science Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. CVEN 2121 and CVEN 3111 may be substituted for MECH 2023 and MECH 2033 respectively.
2. Not all courses may be offered every semester.
3. Students must maintain a minimum 2.0 GPA in all courses applying to major requirements.
4. Students must maintain a minimum 2.0 GPA in all MECH courses attempted.
5. Students must complete a minimum of 128 semester hours of course work.
6. The last 30 hours must be earned as a degree-seeking student in the College of Engineering and Applied Science at CU Denver.

Take all of the following courses in Mechanical Engineering major:

- MECH 1025-CAD and Graphics for Mechanical Engineering
- MECH 2023 - Statics or
- CVEN 2121 - Analytical Mechanics I
- MECH 2033 - Dynamics or
- CVEN 3111 - Analytical Mechanics II
- MECH 1045 - Manufacturing Processes Design
- MECH 2024 - Introduction to Materials Science
- MECH 2034 - Properties of Engineering Materials
- 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 4035 - Senior Design I
- MECH 4045 - Senior Design II
- MECH 4142 - Thermal Systems Design

Take 12 semester hours of Technical Electives.

Take all of the following Mathematics courses:

- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 2421 - Calculus III
- MATH 3195 - Linear Algebra and Differential Equations

Take all of the following Science courses:

- CHEM 1130 - Engineering General Chemistry *
- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I
- PHYS 2331-General Physics II: Calculus-Based
- PHYS 2341-General Physics Lab II
*ENGR 1130 is an acceptable substitute for CHEM 1130


## Music Business Emphasis, Audition Track, Music BS

## Introduction

Please click here to see general Music \& Entertainment Industry Studies information.
The music business emphasis prepares musicians for careers in such fields as artist management, music publishing, concert promotion, record production, venue management, label promotion, distribution and entertainment law.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.
- The Bachelor of Science (BS) in Music has a competitive application process. Please refer to the Department of Music \& Entertainment Industry Studies website for detailed guidelines and information.
- Students who wish to pursue the music business emphasis, audition track, are required to pass an entrance audition on their primary instrument or voice as part of the application process and to pass varying levels of performance proficiency as part of the curriculum. Please contact the College of Arts \& Media at CAM@ucdenver.edu for further information.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Arts \& Media Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. To earn a BS in Music, students must complete musicianship courses, Music \& Entertainment Industry Studies core courses and requirements from one of the four emphasis areas: performance, singer/songwriter, music business or recording arts.
2. A minimum grade of $\mathrm{C}(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C-(1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.

Take all of the following Musicianship course groups:

- PMUS 1100 - Music Theory I
- PMUS 1110 - Ear Training and Sight Singing I
- PMUS 1023 - Piano Class I
- PMUS 1200 - Music Theory II
- PMUS 1210 - Ear Training and Sight Singing II
- PMUS 1024 - Piano Class II
- PMUS 2100 - Music Theory III
- PMUS 2110 - Ear Training and Sight Singing III
- PMUS 1025 - Piano Class III
- PMUS 2200 - Jazz Theory
- PMUS 1026 - Piano Class IV
- PMUS 1__ Applied Instrument/Voice (1 semester hour)
- PMUS 1500 - General Recital
- PMUS___ Ensemble (1 semester hour) Note: Students must complete PMUS 1470 - Performance Practice Ensemble during their first or second semester of Applied Instrument/Voice.
- PMUS 1__ Applied Instrument/Voice (1 semester hour)
- PMUS 1500 - General Recital
- PMUS___ Ensemble (1 semester hour)
- PMUS 2__ Applied Instrument/Voice (1 semester hour)
- PMUS 1500 - General Recital
- PMUS___ Ensemble (1 semester hour)
- PMUS 2__ Applied Instrument/Voice (1 semester hour)
- PMUS 1500 - General Recital
- PMUS___ Ensemble (1 semester hour)

Take all of the following Musicianship courses:

- PMUS 3830 - History and Literature of Music I
- PMUS 3831 - History and Literature of Music II
- PMUS___ Music History Elective (3 semester hours)
- PMUS___ Ensemble (1 semester hour)
- PMUS___ Ensemble (1 semester hour)

Take all of the following Music \& Entertainment Industry Studies Core courses:

- MUSC 2700 - Introduction to Music Business
- MUSC 2540 - Audio Production I
- MUSC 2560 - Audio Production II

Take all of the following Music Business Emphasis courses:

- MUSC 3210 - Music and Entertainment Marketing
- MUSC 3220 - Artist Management
- MUSC 3690 - Concert Promotion, Tour, and Venue Management
- MUSC 3700 - Music and Entertainment Business in the Digital Age
- MUSC 3710 - CAM Records
- MUSC 3755 - Music Publishing
- MUSC 3720 - Law and the Music Industry
- MUSC 4740 - Music Business Analysis
- MUSC 4890 - Music Business Senior Seminar

Take three semester hours of Music Business elective.

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for lists of approved electives and more information about this emphasis.

Music Business Emphasis, Non-Audition Track, Music BS

## Introduction

Please click here to see general Music \& Entertainment Industry Studies information.
The music business emphasis prepares undergraduates for careers in such fields as artist management, music publishing, concert promotion, record production, venue management, label promotion, distribution and entertainment law.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.
- The Bachelor of Science (BS) in Music has a competitive application process. Please refer to the Department of Music \& Entertainment Industry Studies website for detailed guidelines and information.
- Students who wish to pursue the music business emphasis, non-audition track, are not required to complete an audition as part of the application process. Students will be assessed for varying levels of performance proficiency as part of the curriculum. Please contact the College of Arts \& Media at CAM@ucdenver.edu for further information.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Arts \& Media Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. To earn a BS in Music, students must complete musicianship courses, Music \& Entertainment Industry Studies core courses and requirements from one of the four emphasis areas: performance, singer/songwriter, music business or recording arts.
2. A minimum grade of $\mathbf{C}(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C - (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.

Take all of the following Musicianship course groups:

- PMUS 1100 - Music Theory I
- PMUS 1110 - Ear Training and Sight Singing I
- PMUS 1023 - Piano Class I
- PMUS 1200 - Music Theory II
- PMUS 1210 - Ear Training and Sight Singing II
- PMUS 1024 - Piano Class II
- PMUS 18__ Applied Instrument/Voice, Non-Juried (1 semester hour)
- PMUS 1500 - General Recital
- PMUS 18__ Applied Instrument/Voice, Non-Juried (1 semester hour)
- PMUS 1500 - General Recital

Take all of the following Musicianship courses:

- PMUS 1310 - Sight Reading and Improvisation
- PMUS 2310 - Introduction to Songwriting
- PMUS 3830 - History and Literature of Music I
- PMUS 3831 - History and Literature of Music II
- PMUS $\qquad$ Music History Elective ( 3 semester hours)
- PMUS $\qquad$ Ensemble (1 semester hour)
- PMUS $\qquad$ Ensemble (1 semester hour)

Take two of the following Musicianship courses:

- PMUS 1025 - Piano Class III
- PMUS 1026 - Piano Class IV
- PMUS 1040 - Class Guitar
- PMUS 1041 - Class Guitar II
- PMUS 1050 - Voice Class I
- PMUS 1060 - Voice Class II

Take one of the following Musicianship courses:

- PMUS 2200 - Jazz Theory
- PMUS 3310 - Intermediate Songwriting
- PMUS 2220 - Commercial Electronic Music Composition

Take three semester hours of Music Performance electives.

Take all of the following Music \& Entertainment Industry Studies Core courses:

- MUSC 2700 - Introduction to Music Business
- MUSC 2540 - Audio Production I
- MUSC 2560 - Audio Production II

Take all of the following Music Business Emphasis courses:

- MUSC 3210 - Music and Entertainment Marketing
- MUSC 3220 - Artist Management
- MUSC 3690 - Concert Promotion, Tour, and Venue Management
- MUSC 3700 - Music and Entertainment Business in the Digital Age
- MUSC 3710 - CAM Records
- MUSC 3755 - Music Publishing
- MUSC 3720 - Law and the Music Industry
- MUSC 4740 - Music Business Analysis
- MUSC 4890 - Music Business Senior Seminar

Take six semester hours of Music Business Emphasis electives.
Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for lists of approved electives and more information about this emphasis.

## Painting and Drawing Emphasis, Fine Arts BFA

## Introduction

Please click here to see general Visual Arts information.
The painting and drawing emphasis takes a contemporary approach that works to integrate painterly and drawing concerns with focused artistic practice and developing critical dialogue. As a studio discipline, painting and drawing is as rich in visual arts history as it is charged with contemporary innovation. Painting and drawing as a studio practice encourages a multi-faceted dialogue within this continuum. Students are introduced to a variety of techniques and ideas, exposed to several historical and contemporary practices, and are challenged to develop a studio process that involves both formal and conceptual impact. Painting and drawing classes are interdisciplinary in that they allow the use of multiple materials and/or techniques in the production of a successful art piece or body of work. Students come away with a strong studio skill base, an engaged conceptual framework, and an ability to take part in the exciting discourse of contemporary painting and drawing.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.
- Students who are applying for entrance into the painting and drawing emphasis must submit a portfolio, as described below. The painting and drawing emphasis accepts applications twice a year. Students who meet the requirements and are accepted go on to take upper-division painting and drawing courses.


## ELIGIBILITY

## University of Colorado Denver Students

The student has completed, or is in the process of completing, the following courses:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2030 - Life Drawing
- FINE 2155 - Introduction to Digital Photography
- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II

A minimum cumulative fine arts/art history GPA of 2.75

## Transfer Students

The student has completed and is transferring a minimum of 24 credit hours from a previous institution.
Student has completed, or is in the process of completing, the equivalents of the following courses:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2030 - Life Drawing
- FINE 2600 - Art History Survey I

A minimum cumulative fine arts/art history GPA of 2.75

## PORTFOLIO APPLICATION REQUIREMENTS

Students applying to the painting and drawing emphasis submit a portfolio of 10 images in digital format, a written statement and unofficial transcript(s) from CU Denver and all previous post-secondary educational institutions. Application materials must be uploaded to SlideRoom.com by November 1 or April 1 at 5:00 pm (Mountain Time). Applications are only accepted online and must be formatted to the specifications listed below. There is a $\$ 30$ fee to apply.

## Portfolio of Images

The portfolio must include a minimum of 10 digital images of creative work (but no more than 15 ). Submit six or more images of artworks done in FINE 1100 Drawing I, FINE 1400 Two Dimensional Design, FINE 1500 ThreeDimensional Design and FINE 2030 Life Drawing. Also provide two or more artworks that demonstrate an understanding of value and color. Additional examples (up to five) may include design, drawing, painting, photography, mixed media, installation and/or printmaking.

All images should be formatted as JPEGs. Limit file size to $\mathbf{1}$ megabyte. File names must be numbered, include the student's last name, and then an underscore and a brief title.

## File Name Examples:

- 1_lastname_figuredrawing.jpeg
- 2_lastname_still-lifedrawing.jpeg

Note: For each image uploaded to SlideRoom, the applicant must provide the following information: title, year, media and size, the name of the course for which it was created (if applicable) and a brief explanation of the artwork.

## Written Statement

A written statement must be uploaded as a PDF file with the portfolio on SlideRoom. In the essay, the student should address the following questions in no more than one page in length (400-500 words).

- Why do you want to study painting and drawing and what goals and expectations do you have regarding a career as a studio artist?
- What are your creative strengths, and what areas need further development?
- What other accomplishments would you like the committee to know about, such as Dean's List, GPA, internships, art-related extracurricular activities or relevant professional experience?


## Course Transcripts

These may be official or unofficial transcripts from CU Denver and previous post-secondary institutions. The CU Denver transcript must show any current semester courses.

## THE EVALUATION PROCESS

- A committee of painting and drawing faculty members reviews the application materials. Acceptance into the painting and drawing emphasis is based on the portfolio images, written statement and GPA.
- If not admitted into the painting and drawing emphasis, a student has the choice of attempting the review process again in a later semester or applying to another emphasis. Students are encouraged to apply for more than one emphasis. Students are also encouraged to schedule a meeting with the area head of painting and drawing to learn ways to improve their portfolios for future submissions.
Please note that there are minors in illustration and painting/drawing. Should a student not get into their first choice emphasis area, there is the possibility of minoring in that area. These minors do not require portfolio review. To learn more, please link to these minors from the Programs page in this catalog.


## The application is evaluated on the following criteria:

- Presentation - The portfolio should be well-crafted and well organized in content and presentation.
- Technical Skill - The portfolio should demonstrate strong proficiency in drawing, composition, design and color.
- Creativity - The portfolio should demonstrate creative choices in content and aesthetics.
- Conceptual Skills - The portfolio and written statements should reflect analytical thinking and conceptual exploration of the foundations of drawing and design.
- Written Statement - The statement should outline academic and artistic goals, addressing any potential strengths and weaknesses.
- Academic Performance - The grades must reflect a commitment to learning and growth.
- Completeness of Application - All required documentation must be submitted (images, written statement and transcripts).


## QUESTIONS

For more portfolio information, please contact CAM@ucdenver.edu or painting/drawing area head Melissa Furness at melissa.furness@ucdenver.edu.

## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- Degree Requirements-ARTM w/o Programs
- Click here for information about Academic Policies


## Program Requirements

1. A minimum grade of $\mathrm{C}(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C- (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
2. All upper-division visual arts courses must be taken at CU Denver unless approved otherwise by Department of Visual Arts faculty.
3. At least 27 semester hours of visual arts credits (at any level) must be taken at CU Denver.
4. At least 24 semester hours of total visual arts courses must be upper-division.

Take all of the following Pre-Portfolio courses:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2030 - Life Drawing
- FINE 2155 - Introduction to Digital Photography
- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II

Take all of the following lower-division Visual Arts courses:

- FINE 2010 - The Graphic Novel Workshop
- FINE 2200 - Painting I

Take all of the following Painting \& Drawing Emphasis courses (to be taken after gaining acceptance to emphasis via portfolio review):

- FINE 3200 - Intermediate Painting and Drawing
- FINE 4100 - Painting \& Drawing Theory \& Practice
- FINE 4200 - Advanced Painting and Drawing I
- FINE 4210 - Advanced Painting/Drawing II

Take all of the following upper-division Visual Arts courses:

- FINE 3030 - The Media of Drawing
- FINE 3050 - Figure Painting
- FINE 3240 - Abstract Painting and Drawing
- FINE 3300 - Painting, Drawing and the Printed Image
- FINE 3500 - Installation Art
- FINE 4990 - Contemporary Art: 1960 to Present

Take three semester hours of Pre-20th Century Art History elective.

Take three semester hours of upper-division Art History elective.
Take three semester hours of Studio Arts elective in an area outside of painting, drawing or illustration.

Take six semester hours of Studio Arts electives.

Take six semester hours of Visual Arts electives. These may include studio, lecture, internship or art history courses.
Take the following Capstone course:

- FINE 4950 - Studio BFA Thesis

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for lists of approved electives and more information about this emphasis.

## Performance Emphasis, Music BS

## Introduction

Please click here to see general Music \& Entertainment Industry Studies information.
The performance emphasis includes specialized courses in small performance ensembles, applied private study, contemporary improvisation, and analysis and history. Students gain a diverse set of performance skills in commercial, jazz, classical and experimental music styles.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.
- The Bachelor of Science (BS) in Music has a competitive application process. Please refer to the Department of Music \& Entertainment Industry Studies website for detailed guidelines and information.
- Students who wish to pursue the performance emphasis are required to pass an entrance audition on their primary instrument or voice as part of the application process and to pass varying levels of performance proficiency as part of the curriculum. This includes passing a Sophomore Proficiency on the primary instrument or voice in order to maintain performance emphasis status. Each student is also required to successfully complete a junior recital and the 2 -credit PMUS 4200 Senior Recital Project. Please contact the College of Arts \& Media at CAM@ucdenver.edu for further information.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Arts \& Media Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. To earn a BS in Music, students must complete musicianship courses, Music \& Entertainment Industry Studies core courses and requirements from one of the four emphasis areas: performance, singer/songwriter, music business or recording arts.
2. A minimum grade of $C(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C -(1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.

Take all of the following Music \& Entertainment Industry Studies Core courses:

- MUSC 2700 - Introduction to Music Business
- MUSC 2540 - Audio Production I
- MUSC 2560 - Audio Production II

Take one of the following Music \& Entertainment Industry Studies Core courses:

- MUSC 3210 - Music and Entertainment Marketing
- MUSC 3220 - Artist Management

Take all of the following Musicianship course groups:

- PMUS 1100 - Music Theory I
- PMUS 1110 - Ear Training and Sight Singing I
- PMUS 1023 - Piano Class I
- PMUS 1200 - Music Theory II
- PMUS 1210 - Ear Training and Sight Singing II
- PMUS 1024 - Piano Class II
- PMUS 2100 - Music Theory III
- PMUS 2110 - Ear Training and Sight Singing III
- PMUS 1025 - Piano Class III
- PMUS 2200 - Jazz Theory
- PMUS 1026 - Piano Class IV
- PMUS $1 \_$_ Applied Instrument/Voice (1 semester hour)
- PMUS 1500 - General Recital
- PMUS $\qquad$ Ensemble (1 semester hour) Note: Students must complete PMUS 1470 - Performance Practice Ensemble during their first or second semester of Applied Instrument/Voice.
- PMUS 1 $\qquad$ Applied Instrument/Voice (1 semester hour)
- PMUS 1500 - General Recital
- PMUS ___ Ensemble (1 semester hour)
- PMUS 2__ Applied Instrument/Voice (1 semester hour)
- PMUS 1500-General Recital
- PMUS ___ Ensemble (1 semester hour)
- PMUS 2__ Applied Instrument/Voice (1 semester hour)
- PMUS 1500 - General Recital
- PMUS ___ Ensemble (1 semester hour)

Take all of the following Musicianship courses:

- PMUS 3830 - History and Literature of Music I
- PMUS 3831 - History and Literature of Music II
- PMUS___ Music History elective (3 semester hours)

Take all of the following Performance Emphasis course groups:

- PMUS 3 $\qquad$ Applied Instrument/Voice (2 semester hours)
- PMUS 1500 - General Recital
- PMUS ___ Ensemble (1 semester hour)
- PMUS 3__ Applied Instrument/Voice (2 semester hours)
- PMUS 1500 - General Recital
- PMUS ___ Ensemble (1 semester hour)
- PMUS 4__ Applied Instrument/Voice (2 semester hours)
- PMUS 1500 - General Recital
- PMUS ___ Ensemble (1 semester hour)
- PMUS 4__ Applied Instrument/Voice (2 semester hours)
- PMUS 1500 - General Recital
- PMUS ___ Ensemble (1 semester hour)

Take one of the following Performance Emphasis courses:

- PMUS 3300 - Advanced Jazz Improvisation
- PMUS 3330 - Advanced Vocal Improvisation (for Voice students only)

Take all of the following Performance Emphasis courses:

- PMUS 3210 - Introduction to Teaching Private Music Lessons
- PMUS 4060 - Music Theory Analysis
- PMUS 4200 - Senior Recital Project

Take five semester hours of Music electives. Specific elective courses may be required depending on student's primary instrument.

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for lists of approved electives and more information about this emphasis.

## Philosophy BA

## Introduction

Please click here to see Philosophy department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a degree, students must satisfy all requirements in each of the three areas below, in addition to their individual major requirements.

- CU Denver General Graduation Degree Requirements
- CU Denver Core Curriculum
- College of Liberal Arts \& Sciences Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A total of 36 semester hours must be completed for the Philosophy major* and at least 18 of which must be taken at CU Denver.
2. A minimum grade of $\mathrm{C}(2,0)$ is required in each course.
3. Courses taken at other institutions must be approved by an advisor in the Philosophy Department for application towards the major.
4. No more than 6 hours below the 3000 level may be counted toward the major.
*For those students who qualify for and fulfill the requirements of graduation with Honors, a total of at least 39 hours is required.

Take all of the following required courses:

- PHIL 2441 - Logic, Language and Scientific Reasoning or
- PHIL 3440 - Introduction to Symbolic Logic
- PHIL 3002 - Ancient Greek Philosophy
- PHIL 3022 - Modern Philosophy
- PHIL 4760 - Kant

Take one of the following upper divison Social/Political Philosophy courses:

- PHIL 3200 - Social and Political Philosophy
- PHIL 3280 - War and Morality
- PHIL 3500 - Ideology and Culture: Racism and Sexism
- PHIL 4795 - Marx and Marxism

Take one of the following upper division Ethics courses:

- PHIL 3150 - History of Ethics
- PHIL 3250 - Business Ethics
- PHIL 3280 - War and Morality
- PHIL 3500 - Ideology Culture
- PHIL 3550 - Philosophy of Death and Dying
- PHIL 4242 - Bioethics
- PHIL 4250 - Environmental Ethics
- PHIL 4260 - Philosophy of Law
- PHIL 4500 - Feminist Philosophy

Take one of the following upper division Continental Philosophy courses:

- PHIL 4770 - Hegel
- PHIL 4780 - Heidegger
- PHIL 4790 - Nietzsche
- PHIL 4795 - Marx and Marxism
- PHIL 4833 - Existentialism

Take one of the following upper division American or Analytic Philosophy courses:

- PHIL 3032 - Twentieth Century Analytic Philosophy
- PHIL 4101 - Pragmatism: Classical American Philosophy
- PHIL 4300 - Philosophy of Mind
- PHIL 4350 - Philosophy of Science
- PHIL 4900 - John Dewey

Take one of the following history of Philosophy courses:

- PHIL 3005 - Roman and Early Medieval Philosophy
- PHIL 3010 - Medieval Philosophy
- PHIL 3022 - Modern Philosophy
- PHIL 3032 - Twentieth Century Analytic Philosophy
- PHIL 4000-19th Century Philosophy
- PHIL 4101 - Pragmatism: Classical American Philosophy
- PHIL 4735 - Rationalism
- PHIL 4740 - Empiricism
- PHIL 4770 - Hegel
- PHIL 4780 - Heidegger
- PHIL 4790 - Nietzsche
- PHIL 4795 - Marx and Marxism
- PHIL 4800 - Plato
- PHIL 4810 - Aristotle
- PHIL 4820 - Hume
- PHIL 4833 - Existentialism
- PHIL 4900 - John Dewey

Take one additional upper division elective (courses from previous lists may apply if they were not already used to satisfy distribution area requirements)

Take two additional PHIL electives (may be upper or lower division)

## Photography Emphasis, Fine Arts BFA

## Introduction

Please click here to see general Visual Arts information.
Students in the photography emphasis develop skills in traditional and digital photography while refining their creative and conceptual approaches to the medium. The photography curriculum emphasizes individual artistic development that integrates the history of photography, critical theory and contemporary practice. Through an exploration of photographic techniques, students are given the tools to create visually compelling images that communicate their artistic ideas.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.
- Students who are applying for entrance into the photography emphasis must submit a portfolio, as described below. The photography emphasis accepts applications twice a year. Students who meet the requirements and are accepted into the emphasis will be eligible to register for required upper-division studio photography courses.


## ELIGIBILITY

University of Colorado Denver students and transfer students must have a minimum cumulative GPA of 2.75 in fine art and art history courses. In order to apply to the photography emphasis, students must have completed, or be in the process of completing, the following courses:

- FINE 1100 - Drawing I
- FINE 1150 - Introduction to Darkroom Photography
- FINE 1400 - Two Dimensional Design
- FINE 2155 - Introduction to Digital Photography
- FINE 2600 - Art History Survey I


## PORTFOLIO APPLICATION REQUIREMENTS

Properly prepared application submissions must be uploaded to SlideRoom.com by November 1 or April 1 at 5:00 pm (Mountain Time). The November 1 application deadline is recommended. Applications are only accepted online and must be formatted to the specifications listed here.

It is strongly recommended that students visit the submission website early and begin uploads two weeks before the due date. Late submissions due to technical difficulties on the part of the applicant will not be accepted.

Step 1: Register and create an account in SlideRoom. Please go to the following website to complete this process: https://ucdvisualarts.slideroom.com. (Note that SlideRoom charges a $\$ 30.00$ fee to process portfolio submissions.)

Step 2: When prompted answer all questions about the application.
Step 3: Upload documents, including the written statement and transcripts from the University of Colorado Denver and all previous post-secondary institutions.

Step 4: Upload 10 image files of creative work.

## Portfolio of Images

- The photography portfolio must include 10 image files of creative work. At least six portfolio images should be photographic, demonstrating the student's understanding of concept, form, composition and technique. The remaining four portfolio pieces may be photographic or they may be examples of design, drawing, painting, mixed media, sculpture, installation and/or printmaking.
- For each portfolio image, the student should write a brief description (150 words or less) that identifies the medium (silver gelatin print, ink jet print, charcoal drawing, etc.) and explains the student's approach to the project.
- Images must be submitted in jpeg format, 12 inches on the longer side, sized at 72 pixels per inch, and saved at the highest setting available (usually 10 or 12). Files should be named with the student's last name, then first name and image title using underscores to separate. Example: Doe_Jane_ImageTitle.jpg.


## Written Statement

Written statements should be limited to one page in length (400-500 words) and saved as a .pdf file. Statements should address the following questions:

- Why do you want to study photography?
- What goals and expectations do you have regarding a career as a photographer?
- What are your creative strengths, and what areas need further development?
- Are there additional accomplishments that you would like the committee to know about (such as Dean's List, GPA, internships, art-related extracurricular activities or relevant professional experience)?


## Course Transcripts

These may be official or unofficial transcripts from CU Denver and previous post-secondary institutions. The CU Denver transcript must show any current semester courses.

## THE EVALUATION PROCESS

- A committee of photography faculty members reviews the portfolio submissions. Acceptance into the photography emphasis is based on the portfolio images, written statement and GPA.
- If not admitted into the photography emphasis, a student has the choice of attempting the review process again in a later semester or applying to another emphasis. Students not admitted into the photography emphasis are encouraged to schedule a meeting with the area head of photography to learn ways to improve their portfolios for future submissions.


## The application is evaluated on the following criteria:

- Technical Skill - The portfolio should demonstrate strong knowledge of the fundamental tools of photography, including camera functions, analog film development, darkroom printing and digital imaging, as well as an understanding of design, form, composition and color.
- Creativity - The portfolio should demonstrate creative choices in content and aesthetics.
- Conceptual Skill - The portfolio and written statements should reflect analytical thinking and conceptual exploration of the photographic medium.
- Written Statement - The statement should outline academic and artistic goals, addressing any potential strengths and weaknesses.
- Academic Performance - The grades must reflect a commitment to learning and growth.
- Completeness of Application - All required documentation must be submitted (images, written statement and transcripts).


## QUESTIONS

For more portfolio information, please contact CAM@ucdenver.edu or photography area head Carol Golemboski at carol.golemboski@ucdenver.edu.

## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Arts \& Media Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minimum grade of $\mathrm{C}(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C-(1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
2. All upper-division visual arts courses must be taken at CU Denver unless approved otherwise by Department of Visual Arts faculty.
3. At least 27 semester hours of visual arts credits (at any level) must be taken at CU Denver.
4. At least 24 semester hours of total visual arts courses must be upper-division.

Take all of the following Pre-Portfolio courses:

- FINE 1100 - Drawing I
- FINE 1150 - Introduction to Darkroom Photography
- FINE 1400 - Two Dimensional Design
- FINE 2155 - Introduction to Digital Photography
- FINE 2600 - Art History Survey I

Take all of the following Photography Emphasis courses (available to students accepted to emphasis via portfolio review):

- FINE 3156 - Photography Studio and Lighting
- FINE 3160 - Color and the Constructed Image
- FINE 3161 - The Silver Fine Print
- FINE 3162 - The Digital Fine Print
- FINE 3171 - Concepts and Processes in Photography
- FINE 3172 - Photography and Community
- FINE 4195 - Advanced Photography I
- FINE 4196 - Advanced Photography II

Take all of the following Visual Arts courses:

- FINE 1500 - Three-Dimensional Design
- FINE 2610 - Art History Survey II
- FINE 3630 - History of Photography
- FINE 3631 - Photography: Theory and Criticism
- FINE 3635 - Photography Now
- FINE 4990 - Contemporary Art: 1960 to Present

Take three semester hours of Pre-20th Century Art History elective.

Take three semester hours of Studio Arts elective in an area outside of photography.

Take nine semester hours of Studio Arts electives.

Take six semester hours of Visual Arts electives. These may include studio, lecture, internship or art history courses.
Take the following Capstone course:

- FINE 4950 - Studio BFA Thesis

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for lists of approved electives and more information about this emphasis.

## Physics - Biophysics and Medical Physics Option BS

## Introduction

Please click here to see Physics department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. Students must declare their intention to major in Physics by the time they have completed 60 semester hours.
2. Students must complete between 46 and 50 credit hours in physics (depending on the track chosen) to receive the degree of Bachelor of Science in Physics.
3. No grade below a C (2.0) can be used to meet the requirements for the major.
4. At least 12 semester hours of the requirements for the major must be completed at CU Denver. Take all of the following required courses:

- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I
- PHYS 2331-General Physics II: Calculus-Based
- PHYS 2341 - General Physics Lab II
- PHYS 2711 - Vibrations and Waves
- PHYS 2811 - Modern Physics I
- PHYS 3120 - Methods of Mathematical Physics
- PHYS 3711 - Junior Laboratory I
- PHYS 3811 - Quantum Mechanics

Take all of the following ancillary courses:

- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 2421 - Calculus III
- MATH 3195 - Linear Algebra and Differential Equations

Note: The department will accept the following combination of math courses in place of MATH 3195:

- MATH 3191 - Applied Linear Algebra
- MATH 3200 - Elementary Differential Equations

Take all of the following Biophysics and Medical Physics track courses:

- PHYS 3251 - Biophysics of the Body
- PHYS 3451 - Biophysics of the Cell

Take one of the following courses:

- PHYS 4351 - Bioelectromagnetism (recommended option)
- PHYS 4331 - Principles of Electricity and Magnetism

Take eight semester hours of Biophysics electives at the 3000-level or above approved by advisor (including up to 3 semester hours independent study and/or two courses, PHYS 3151 and PHYS 3161, listed below) or

The following four courses (an option primarily for pre-med physics majors):

-     * BIOL 2051 - General Biology I
-     * BIOL 2061 - General Biology II
- PHYS 3151 - Biophysics Outlook I
- PHYS 3161 - Biophysics Outlook II

Additionally, take a laboratory:

- PHYS 3721 - Junior Laboratory II or

The following two courses (an option primarily for pre-med physics majors):

-     * BIOL 2071 - General Biology Laboratory I
-     * BIOL 2081 - General Biology Laboratory II

Note: courses marked with an asterisk are generally required for medical school admissions.

Take one three semester hour numerical modeling or probability and statistics course approved by advisor.

## Physics - Pure and Applied Physics Option BS

## Introduction

Please click here to see Physics department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. Students must declare their intention to major in Physics by the time they have completed 60 semester hours
2. Students must complete between 46 and 50 credit hours in physics (depending on the track chosen) to receive the degree of Bachelor of Science in Physics.
3. No grade below a $C$ (2.0) can be used to meet the requirements for the major.
4. At least 12 semester hours of the requirements for the major must be completed at CU Denver.

Take all of the following required courses:

- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I
- PHYS 2331 - General Physics II: Calculus-Based
- PHYS 2341 - General Physics Lab II
- PHYS 2711 - Vibrations and Waves
- PHYS 2811 - Modern Physics I
- PHYS 3120 - Methods of Mathematical Physics
- PHYS 3711 - Junior Laboratory I
- PHYS 3811 - Quantum Mechanics

Take all of the following ancillary courses:

- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 2421 - Calculus III
- MATH 3195 - Linear Algebra and Differential Equations

Note: The department will accept the following combination of math courses in place of MATH 3195:

- MATH 3191 - Applied Linear Algebra
- MATH 3200 - Elementary Differential Equations

Take all of the following Pure and Applied Physics track courses:

- PHYS 3211-Analytical Mechanics
- PHYS 3411 - Thermal Physics
- PHYS 3721 - Junior Laboratory II
-     * PHYS 4331 - Principles of Electricity and Magnetism
- PHYS 4711 - Senior Laboratory I
(or a course in computational physics approved by advisor)
* Note: Students who must retake PHYS 4331 may fulfill this requirement by obtaining a C or better in:
- PHYS 4351 - Bioelectromagnetism

Take six semester hours of physics-related electives at 3000 -level or above approved by advisor, including up to 3 semester hours of independent study

## Political Science - Public Policy Option, BA

## Introduction

Please click here to see Political Science department information.
This option was designed for students who specifically desire to pursue careers in public policy and/or public administration in the public or nonprofit sectors. This BA track emphasizes the specifically political aspects of public policy processes, settings and is grounded in basic political science theory and familiarity with American, Comparative and International politics. Courses will emphasize key policy issues confronting U.S. local, state and national decision makers and citizens. A focus on politics and the policy-making process will prepare students conceptually and methodologically to move beyond partisan politics to address how leaders can best mobilize resources to achieve constituent goals consistent with the public interest.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. Must complete a minimum of 36 semester hours in political science, of which at least 21 must be upperdivision courses.
2. Fifteen of the 36 hours must be taken from CU Denver faculty.
3. A minimum GPA of 2.0 or better is required for all PSCI courses taken at CU Denver.
4. Two cognate courses (don't count toward the 36 hours) from the list below must be completed. Take all of the following courses:

- PSCI 1001 - Introduction to Political Science: The Quest for Freedom and Justice
- PSCI 1101 - American Political System
- PSCI 3011 - Research Methods

Take one of the following 4000-level American Politics courses:

- PSCI 4002 - Topics in Political Science
- PSCI 4014 - Media and Politics
- PSCI 4024 - State Politics: Focus Colorado
- PSCI 4025 - Local Governance and Globalization
- PSCI 4044 - The Presidency
- PSCI 4094 - Seminar: American Politics
- PSCI 4124 - Denver Politics
- PSCI 4324 - Politics, Public Policy and Leadership
- PSCI 4354 - Environmental Politics
- PSCI 4374 - Public Priorities for the 21st Century
- PSCI 4477 - Constitutional Law I
- PSCI 4487 - Constitutional Law II
- PSCI 4545 - Immigration Politics

Take one of the following 4000-level Comparative Politics and International Relations courses:

- PSCI 4085 - Comparative Governance: Environment and Society
- PSCI 4124 - Denver Politics
- PSCI 4185 - Corruption in the U.S. and Abroad
- PSCI 4226 - The United Nations in World Affairs
- PSCI 4236 - American Foreign Policy
- PSCI 4266 - International Law
- PSCI 4326 - Advanced International Political Economy: Globalization
- PSCI 4645 - Comparative Political Leadership

Take one of the following 4000-level Public Policy and Administration courses:

- PSCI 4009 - Politics of the Budgetary Process
- PSCI 4024 - State Politics: Focus Colorado
- PSCI 4084 - Local Government and Administration
- PSCI 4274 - Conflict Resolution and Public Consent Building
- PSCI 4414 - Organizational Change Agents
- PSCI 4644 - Ethical Responsibilities of Leaders

Take any two additional courses from the three fields above, plus take any one other upper or lower-division PSCI course.

Take all of the following Political Theory courses:

- PSCI 4427 - Law, Politics and Justice
- PSCI 4437 - Coercion and the State

Take one of the following courses: (Students with significant pre-existing political or civic engagement experience in the community, or for whom the experiential-learning requirement poses a hardship may petition the chair to waive the experiential-learning requirement; the overall requirement of 36 credit hours for Political Science graduation will still apply.)

- PSCI 3939 - Internship
- PSCI 4934-CU at the Capitol

Take all of the following cognate courses:

- ECON 2012 - Principles of Economics: Macroeconomics
- ECON 2022 - Principles of Economics: Microeconomics


## Political Science BA

## Introduction

Please click here to see Political Science department information.
Courses are distributed among the primary fields as listed in this section, i.e., American politics, comparative politics, international relations, political theory and public policy and administration.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a degree, students must satisfy all requirements in each of the 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
- Click here for information about Academic Policies


## Program Requirements

1. Must complete a minimum of 39 semester hours in political science, of which at least 21 must be upperdivision courses.
2. Fifteen of the 39 hours must be taken from CU Denver faculty.
3. A minimum GPA of 2.0 or better is required for all PSCI courses taken at CU Denver.
4. Adhere to the following course requirements

Take all of the following required courses:

- PSCI 1001 - Introduction to Political Science: The Quest for Freedom and Justice
- PSCI 1101 - American Political System
- PSCI 2011 - Logic of Political Inquiry *
*This course must be taken by all majors as part of their first 24 credit hours in the program. If this requirement poses a hardship due to such issues as late-declaring majors, scheduling problems, or students transferring in multiple credits, please contact the Department undergraduate advisor to craft a solution.

Take two of the following political theory courses:

- PSCI 4207 - Theories of Social and Political Change
- PSCI 4265 - Social Justice And Globalization
- PSCI 4407 - Early Political Thought
- PSCI 4417 - Modern Political Thought
- PSCI 4427 - Law, Politics and Justice
- PSCI 4437 - Coercion and the State
- PSCI 4457 - American Political Thought
- Other theory courses may apply to this requirement, see advisor

Take one of the following 4000-level American Politics courses:

- PSCI 4009 - Politics of the Budgetary Process
- PSCI 4014 - Media and Politics
- PSCI 4024 - State Politics: Focus Colorado
- 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 4094 - Seminar: American Politics
- PSCI 4124 - Denver Politics
- PSCI 4236 - American Foreign Policy
- PSCI 4237 - American National Security
- PSCI 4324 - Politics, Public Policy and Leadership
- PSCI 4330 - U.S. Health Policy
- PSCI 4354 - Environmental Politics
- PSCI 4374 - Public Priorities for the 21st Century
- PSCI 4444 - Contemporary Culture and Politics in America
- PSCI 4457 - American Political Thought
- PSCI 4477 - Constitutional Law I
- PSCI 4487 - Constitutional Law II
- PSCI 4494 - Judicial Politics
- PSCI 4545 - Immigration Politics
- PSCI 4554 - Chicano and Latino Politics
- PSCI 4564 - Gender and Politics
- PSCI 4644 - Ethical Responsibilities of Leaders
- PSCI 4827 - Women and the Law
- PSCI 4837 - Contemporary Issues in Civil Liberties
- PSCI 4934-CU at the Capitol

Take one of the following 4000-level Comparative Politics courses:

- PSCI 4057 - Religion and Politics
- PSCI 4074 - Urban Politics
- PSCI 4085 - Comparative Governance: Environment and Society
- PSCI 4105-Comparative Politics: Europe
- PSCI 4115 - Third World Politics
- PSCI 4144 - Indigenous Political Systems
- PSCI 4146 - Indigenous Politics
- PSCI 4155 - Political Systems of the Middle East and North Africa
- 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 4195 - Political Systems of Sub-Saharan Africa
- PSCI 4206 - Social Movements, Democracy and Global Politics
- PSCI 4215 - Women's Rights, Human Rights: Global Perspectives
- PSCI 4224 - Dictatorships in 21st Century
- PSCI 4225 - Democracy and Democratization
- PSCI 4235 - Politics and Markets in Latin America
- PSCI 4248 - Gender, Globalization and Development
- PSCI 4265 - Social Justice And Globalization
- PSCI 4365 - Global Ecological Crises
- PSCI 4446 - Advanced Indigenous Peoples' Politics
- PSCI 4505 - Political System of Russia and Its Neighbors
- PSCI 4535 - Labor and Working Class Politics
- PSCI 4555 - International Women's Resistance
- PSCI 4605 - Politics and Governments of South Asia
- PSCI 4615 - Politics and Government of China
- PSCI 4807 - Political Violence
- PSCI 4808-Strategies of Peacebuilding

Take one of the following 4000-level International Politics courses:

- PSCI 4126 - Introduction to International Political Economy
- PSCI 4156 - The Arab-Israeli Peace Process
- PSCI 4186 - East Asia in World Affairs
- PSCI 4206 - Social Movements, Democracy and Global Politics
- PSCI 4216 - International Politics: Human Rights
- PSCI 4236 - American Foreign Policy
- PSCI 4237 - American National Security
- PSCI 4266 - International Law
- PSCI 4274 - Conflict Resolution and Public Consent Building
- PSCI 4280 - The Politics of War Law
- PSCI 4286 - International Relations: War or Peace?
- PSCI 4326 - Advanced International Political Economy: Globalization
- PSCI 4726 - Seminar on U.S. and China Relations
- PSCI 4736 - The Middle East in World Affairs

Take one of the following courses:

-     * PSCI 3914 - The Urban Citizen
-     * PSCI 3939 - Internship
- *PSCI 4934-CU at the Capitol
-     * PSCI 4944-CU in the City
-     * PSCI 4995 - Travel Study
*Exceptions to the coursework requirement of the Experiential Learning Requirement
- In lieu of taking one of the preceding courses, students may complete a substantial experiential learning project in a different PSCI class. The course instructor must certify with a written submission to the departmental undergraduate advisor that the experiential learning project in that course fulfills the departmental experiential learning requirement.
- Students with preexisting significant political or civic engagement experience in the community (i.e., community and civic leadership work, or work with government agencies, on political campaigns, or in non-governmental organizations) or for whom the experientiallearning requirement poses a hardship may petition the chair to waive the requirement.
Note: In either of these cases of exception to the Experiential Learning coursework requirement, 39 total credit hours in political science are still required for graduation.

Take the following capstone course:

- PSCI 4960 - Capstone in Political Science

Note: students can only enroll in the capstone course after they have completed at least 27 credit hours in the major.

Take three Political Science elective courses.

Study Abroad Course Credits: The Political Science Department offers several study abroad opportunities. Enrolling in one of these courses may fulfill many of the credit options listed above, depending on the nature of the study abroad course and the students' work within that course. Students should speak with the faculty member leading a particular study abroad course and with the department undergraduate advisor (Lucy McGuffey) to determine how study abroad courses will fit into their curriculum planning.

## Psychology BA

## Introduction

Please click here to see Psychology department information.
The College of Liberal Arts and Sciences also offers a Psychology BS degree.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus and online program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. Psychology BA major requirements include at least 37 and not more than 56 semester hours in psychology.
2. Of these, at least 16 hours must be in upper-division courses taught by CU Denver faculty.
3. No grade below $\mathrm{C}-(1.7)$ will be accepted toward the major requirements, nor will pass/fail grades.
4. A minimum GPA of 2.0 is required for courses applying toward PSYC major requirements.
5. PSYC 3939, Internship/Cooperative Education, does NOT count toward the 37-hour minimum or the 16hour upper-division requirement, but it does count as elective psychology credit.
6. Topics courses (PSYC 3600): See your advisor to determine if they count as Group A or Group B courses.
7. Refer to the course descriptions for prerequisites.

Take all of the following required courses:

- PSYC 1000 - Introduction to Psychology I
- PSYC 1005 - Introduction to Psychology II
- PSYC 2090 - Statistics and Research Methods
- PSYC 2220 - Biological Basis of Behavior
- PSYC 3090 - Research Methods in Psychology
- PSYC 4511 - History of Psychology

Group A: Two Group A courses are required.

Take one of the following:

- PSYC 3222 - Principles of Learning and Behavior
- PSYC 3144 - Human Cognition

Take one of the following to reach a total of two Group A courses:

- PSYC 3104 - Behavioral Genetics
- PSYC 3144 - Human Cognition (if not taken above)
- PSYC 3222 - Principles of Learning and Behavior (if not taken above)
- PSYC 3254 - Introduction to Animal Behavior
- PSYC 3262 - Health Psychology
- PSYC 3263 - Hormones and Behavior
- PSYC 3265 - Drugs, Brain and Behavior
- PSYC 3385 - Psychology of Mindfulness
- PSYC 3724 - Developmental Psychobiology
- PSYC 3810 - Neuropsychology
- PSYC 3822 - Aging, Brain and Behavior
- PSYC 3832 - Neural Basis of Learning
- PSYC 4054 - Behavioral Neuroscience
- PSYC 4164 - Psychology of Perception

Group B: Three Group B courses required.

Take two of the following courses:

- PSYC 3205 - Human Development I: Child Psychology
- PSYC 3305-Abnormal Psychology
- PSYC 3415 - Experimental Social Psychology

Take one of the following to reach a total of three Group B courses:

- PSYC 3145 - Industrial and Organizational Psychology
- PSYC 3205 - Human Development I: Child Psychology (if not taken above)
- PSYC 3215 - Human Development II: Adolescence and Adulthood
- PSYC 3235 - Human Sexuality
- PSYC 3305-Abnormal Psychology (if not taken above)
- PSYC 3405 - Family Psychology
- PSYC 3415 - Experimental Social Psychology (if not taken above)
- PSYC 3505 - Psychology and the Law
- PSYC 3610 - Psychological Trauma
- PSYC 3611 - Psychology of Women
- PSYC 3612 - Domestic Abuse
- PSYC 3615 - Positive Psychology
- PSYC 4455 - Theories of Personality
- PSYC 4485 - Psychology of Cultural Diversity
- PSYC 4500 - Psychotherapy
- PSYC 4730 - Clinical Psychology: Ethics and Issues

Take one additional course from either Group A or Group B not already taken to fulfill that group requirement.

## Psychology BS

## Introduction

Please click here to see Psychology department information.
The College of Liberal Arts and Sciences also offers a Psychology BA degree.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. Students must take at least 31 hours of PSYC coursework. A maximum of 56 semester hours of PSYC coursework will count toward graduation.
2. Students must take $23-27$ credit hours of ancillary course work in Biology and Chemistry.
3. A minimum of 16 upper-division Psychology semester hours must be taken from CU Denver faculty.
4. No grade below C- (1.7) will be accepted toward the major requirements, nor will pass/fail grades.
5. A minimum GPA of 2.0 is required for courses applying toward PSYC major requirements.

Note: An experiential learning component is required and must be approved by the Bachelor of Science academic advisor. To fulfill the experiential learning requirement a student must have a minimum overall GPA of 2.5 or higher. Fulfilling this requirement with a project outside of the Psychology Department requires prior approval by the Bachelor of Science academic advisor. Independent study or internship credit hours taken outside of the Psychology Department will not count as Psychology credit hours.

Take all of the following required courses:

- PSYC 1000 - Introduction to Psychology I
- PSYC 1005 - Introduction to Psychology II
- PSYC 2090 - Statistics and Research Methods
- PSYC 2220 - Biological Basis of Behavior
- PSYC 3090 - Research Methods in Psychology
- PSYC 4054 - Behavioral Neuroscience

Take one of the following courses:

- PSYC 3205 - Human Development I: Child Psychology
- PSYC 3305 - Abnormal Psychology
- PSYC 3415 - Experimental Social Psychology

Take two of the following courses:

- PSYC 3104 - Behavioral Genetics
- PSYC 3222 - Principles of Learning and Behavior
- PSYC 3254 - Introduction to Animal Behavior
- PSYC 3263 - Hormones and Behavior
- PSYC 3265 - Drugs, Brain and Behavior
- PSYC 3724 - Developmental Psychobiology
- PSYC 3810 - Neuropsychology
- PSYC 3822 - Aging, Brain and Behavior
- PSYC 3832 - Neural Basis of Learning
- PSYC 4164 - Psychology of Perception

Take 3 semester hours from the following (all require consultation with BS advisor AND permission of instructor):

- PSYC 3939 - Internship (2.75 GPA required)
- PSYC 4840 - Independent Study: PSYC (2.5 GPA required)
- PSYC 4880 - Directed Research : PSYC (2.5 GPA required)

Honors Project in Psychology (3.5 GPA required): See honors project requirements

Take all of the following required courses:

- BIOL 2051 - General Biology I
- BIOL 2061 - General Biology II
- BIOL 2071 - General Biology Laboratory I
- BIOL 2081 - General Biology Laboratory II
- CHEM 2031 - General Chemistry I
- CHEM 2038 - General Chemistry Laboratory I
- CHEM 2061-General Chemistry II
- CHEM 2068 - General Chemistry Laboratory II

Take two of the following courses:

- BIOL 3225 - Human Physiology
- BIOL 3244 - Human Anatomy
- BIOL 3445 - Introduction to Evolution
- BIOL 3611 - General Cell Biology
- BIOL 3654 - General Microbiology
- BIOL 3832 - General Genetics
- BIOL 4134 - Human Genetics
- BIOL 4165 - Neurobiology
- CHEM 3810 - Biochemistry


## Public Health BA

## Introduction

Please click here to see Health and Behavioral Sciences department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

Director: jimi adams, Associate Professor
Office: North Classroom 3018
Telephone: 3035565893
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Email: jimi.adams@ucdenver.edu

Click here for BS in Public Health

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. The Bachelor of Arts in Public Health consists of 43 credit hours in required classes.
2. Each class must be completed with a grade of $C(2.0)$ or higher to count towards the major.
3. Public Health BA students are required to complete a minimum of 26 hours of the degree requirements at CU Denver, including the core courses for the major (PBHL 2020, 3001, 3030, 3070, 4040 and 4099).

Take all of the following required courses:

- PBHL 2001 - Introduction To Public Health
- PBHL 2020 - Introduction to Environmental Health
- PBHL 3001 - Introduction to Epidemiology
- PBHL 3030 - Health Policy
- PBHL 3070 - Perspectives in Global Health
- PBHL 4040 - Social Determinants of Health
- PBHL 4099 - Capstone Experience in Public Health

Take one of the following Quantitative Methods courses, or another statistics course that has been approved by the undergraduate program director/advisor in advance:

- ANTH 4050 - Quantitative Methods in Anthropology
- BIOL 3763 - Biostatistics
- MATH 2830 - Introductory Statistics
- PSYC 2090 - Statistics and Research Methods
- SOCY 3121 - Statistics

Take two PBHL electives from the following list:

- PBHL 3002 - Ethnicity, Health and Social Justice
- PBHL 2052 - Global Demography and Health
- PBHL 3010 - Human Sexuality and Public Health
- PBHL 3021 - Fundamentals of Health Promotion
- PBHL 3031 - Health, Human Biology and Behavior
- PBHL 3041 - Health, Culture and Society
- PBHL 3071 - Global Topics In Sexual and Reproductive Health
- PBHL 3200 - Human Migration: Nomads, Sojourners, and Settlers
- PBHL 3440 - Medical Sociology
- PBHL 4020 - Global Health: Comparative Public Health Systems
- PBHL 4031 - Ethnographic Research In Public Health
- PBHL 4060 - Evolutionary Medicine
- PBHL 4080 - Global Health Practice
- PBHL 4090 - Drug Syndemic
- PBHL 4110 - Public Health Perspectives On Family Violence
- PBHL 4200 - The Global HIV/AIDS Epidemic
- PBHL 4999 - Topics In Public Health

Take one elective from either the PBHL list (above) or the following list:

- ANTH 4010 - Medical Anthropology: Global Health
- ANTH 4080 - Global Health Practice
- ANTH 4290 - Anthropology and Public Health
- ANTH 4600 - Medical Anthropology
- COMM 4500 - Health Communication
- COMM 4550 - Rhetorics of Medicine \& Health
- COMM 4620 - Health Risk Communication
- ECON 5660 - Health Economics
- ENVS 1342 - Environment, Society and Sustainability
- ETST 3002 - Ethnicity, Health and Social Justice
- GEOG 3501-Geography of Health
- GEOG 4230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 4235 - GIS Applications in the Health Sciences
- HEHM 3100-Introduction to Health Humanities
- HIST 4345 - Gender, Science, and Medicine: 1600 to the Present
- HIST 4346 - Medicine and Society: the Ancients to the Present
- PHIL 4242 - Bioethics
- PSCI 4215 - Women's Rights, Human Rights: Global Perspectives
- PSCI 4330 - U.S. Health Policy
- PSYC 3262 - Health Psychology
- PSYC 3265 - Drugs, Brain and Behavior
- PSYC 3305 - Abnormal Psychology
- PSYC 3822 - Aging, Brain and Behavior
- SOCY 3440 - Medical Sociology
- SOCY 4110 - Sociology of Health Care
- SOCY 4290 - Aging, Society and Social Policy

Biological Sciences Ancillary Courses

Option 1) Take two of the following Biological Sciences ancillary courses:

- BIOL 1550 - Basic Biology: Ecology and the Diversity of Life
- BIOL 1560 - Basic Biology: From Cells to Organisms
- ANTH 1303 - Introduction to Biological Anthropology
-OR-

Option 2) Take all of the following courses:

- BIOL 2051 - General Biology I
- BIOL 2071 - General Biology Laboratory I
- BIOL 2061 - General Biology II
- BIOL 2081 - General Biology Laboratory II


## Public Health BS

## Introduction

Please click here to see Health and Behavioral Sciences department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

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Telephone: 3035565893
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Email: jimi.adams@ucdenver.edu

Click here for BA in Public Health

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the three areas below, in addition to their individual major requirements.

- CU Denver General Degree Requirements
- CU Denver Core Curriculum
- College of Liberal Arts \& Sciences General Degree Requirements
- Click here for information about Academic Policies


## Program Requirements

1. The Bachelor of Science in Public Health consists of 73 hours in required classes.
2. Each class must be completed with a grade of $C(2.0)$ or higher to count towards the major.
3. Public Health BS students are required to complete a minimum of 44 hours of the degree requirements at CU Denver, including the core courses for the major (PBHL 2020, 3001, 3030, 3070, 4040, and 4099) Take all of the following courses (five of the following courses must be taken at the University of Colorado Denver):

- PBHL 2001 - Introduction To Public Health
- PBHL 2020 - Introduction to Environmental Health
- PBHL 3001 - Introduction to Epidemiology
- PBHL 3030 - Health Policy
- PBHL 3070 - Perspectives in Global Health
- PBHL 4040 - Social Determinants of Health
- PBHL 4099 - Capstone Experience in Public Health

Take one of the following Quantitative Methods courses, OR another statistics course that has been approved by the undergraduate program director/advisor in advance:

- ANTH 4050 - Quantitative Methods in Anthropology
- BIOL 3763 - Biostatistics
- MATH 2830 - Introductory Statistics
- PSYC 2090 - Statistics and Research Methods
- SOCY 3121 - Statistics

Take one PBHL elective from the following list:

- PBHL 3002 - Ethnicity, Health and Social Justice
- PBHL 2052 - Global Demography and Health
- PBHL 3010 - Human Sexuality and Public Health
- PBHL 3021 - Fundamentals of Health Promotion
- PBHL 3031 - Health, Human Biology and Behavior
- PBHL 3041 - Health, Culture and Society
- PBHL 3071 - Global Topics In Sexual and Reproductive Health
- PBHL 3200 - Human Migration: Nomads, Sojourners, and Settlers
- PBHL 3440 - Medical Sociology
- PBHL 4020 - Global Health: Comparative Public Health Systems
- PBHL 4031 - Ethnographic Research In Public Health
- PBHL 4060 - Evolutionary Medicine
- PBHL 4080 - Global Health Practice
- PBHL 4090 - Drug Syndemic
- PBHL 4110 - Public Health Perspectives On Family Violence
- PBHL 4200 - The Global HIV/AIDS Epidemic
- PBHL 4999 - Topics In Public Health

Take one elective from either the PBHL list (above), from the following list or another course that has been approved by the undergraduate program director/advisor in advance:

- ANTH 4010 - Medical Anthropology: Global Health
- ANTH 4080 - Global Health Practice
- ANTH 4290 - Anthropology and Public Health
- ANTH 4600 - Medical Anthropology
- ECON 5660 - Health Economics
- GEOG 3501 - Geography of Health
- GEOG 4230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 4235 - GIS Applications in the Health Sciences
- HEHM 3100 - Introduction to Health Humanities
- HIST 4345 - Gender, Science, and Medicine: 1600 to the Present
- HIST 4346 - Medicine and Society: the Ancients to the Present
- PHIL 4242 - Bioethics
- PSCI 4215 - Women's Rights, Human Rights: Global Perspectives
- PSCI 4330 - U.S. Health Policy
- PSYC 3262 - Health Psychology
- PSYC 3265 - Drugs, Brain and Behavior
- PSYC 3305 - Abnormal Psychology
- PSYC 3822 - Aging, Brain and Behavior
- SOCY 3440 - Medical Sociology
- SOCY 4110 - Sociology of Health Care
- SOCY 4290 - Aging, Society and Social Policy

Take all of the following lecture/lab courses:

- BIOL 2051 - General Biology I
- BIOL 2071 - General Biology Laboratory I
- BIOL 2061 - General Biology II
- BIOL 2081 - General Biology Laboratory II

Take all of the following additional math and science ancillary courses:

- CHEM 2031 - General Chemistry I
- CHEM 2038 - General Chemistry Laboratory I
- CHEM 2061 - General Chemistry II
- CHEM 2068 - General Chemistry Laboratory II
- CHEM 3411 - Organic Chemistry I
- CHEM 3418 - Organic Chemistry Laboratory I
- CHEM 3421 - Organic Chemistry II
- CHEM 3428 - Organic Chemistry Laboratory II
- MATH 1401 - Calculus I
- PHYS 2010-College Physics I or
- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2030-College Physics Lab I or
- PHYS 2321 - General Physics Lab I
- PHYS 2020-College Physics II or
- PHYS 2331 - General Physics II: Calculus-Based
- PHYS 2040 - College Physics Lab II or
- PHYS 2341 - General Physics Lab II


## Public Service BA

## Introduction

The Bachelor of Arts in Public Service, offered by the School of Public Affairs, prepares the next generation of civic-minded leaders to take active roles in organizations that promote the common good, such as local, state, and
federal government agencies and nonprofit and nongovernmental organizations. Coursework explores the history and values of public service while building real-world capacity in areas such as managing people and resources, designing and evaluating programs, collaborating with others and across sectors, making ethical decisions, and communicating effectively in diverse environments. All courses are available online, providing students with the flexibility to schedule courses around the reality of family and work demands while also engaging both local and fully online students in public service opportunities in their own communities. Students who choose to focus on nonprofit management also have the option to earn the nationally recognized Certified Nonprofit Professional (CNP) designation through the Nonprofit Leadership Alliance. As workforce demand increases in the government and nonprofit sectors, students will be ready to apply critical thinking and analytical skills to make a difference in the world.

## Program Delivery

- This is an online program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Requirements
- School of Public Affairs Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must receive a minimum C- grade in each undergraduate course applied to satisfy major or minor degree requirements and must maintain a 2.0 GPA overall in major or minor courses.
2. The Bachelor of Arts in Public Service requires 45 credit hours of coursework.
3. Students must complete a minimum of 45 upper-division credit hours, 12 of which must be Public Service courses offered by the School of Public Affairs.
4. A maximum of 12 transfer credits may be applied to the major.

Take all of the following required courses:

- PUAD 1001 - Introduction to Leadership and Public Service
- PUAD 2001 - Management for Public Service
- PUAD 3001 - Financial Management for Public Service
- PUAD 3002 - Program Design, Evaluation, and Decision-Making
- PUAD 4001 - Ethics in Public Service
- PUAD 4002 - Leading for the Public Good
- PUAD 4003 - Effective Communication for Public Service


## Electives

Take a total of $\mathbf{2 4}$ credit hours of electives, twelve of which must be Public Administration courses offered by the School of Public Affairs, and 12 of which may be taken from other departments with advisor approval.

Public Administration Electives:

- PUAD 3003 - Introduction to Nonprofit Organizations
- PUAD 3004 - Managing Nonprofit Organizations
- PUAD 3005 - Collaboration Across Sectors
- PUAD 4004 - Building Public and Financial Support for Nonprofit Organizations
- PUAD 4006 - Organizational Development
- PUAD 4007 - Nonprofit HR: Governance, Staff, Volunteer Management
- PUAD 4008 - Current Issues in Public Sector Organizations
- PUAD 4009 - Human Service Organizations
- PUAD 4010 - Public Service in Emergency Management and Homeland Security
- PUAD 4939 - Public Service Internship
*The internship course, PUAD 4939, is required as one of the electives for the major unless officially waived by the BAPS Program Director, in which case a regular elective may substitute. See SPA Graduation Requirements for more information.
**Please consult your advisor for any other PUAD course you are considering as an elective.


## Other Electives:

All courses taken from another department that you would like to count as an elective must be approved by your advisor. Please contact your advisor directly to discuss any class you may be considering for elective credit that is not listed above.

## Nonprofit Management Concentration:

BAPS students may elect to graduate with an emphasis in Nonprofit Management as part of the Bachelor of Arts in Public Service degree. Students seeking a Nonprofit Management concentration must focus 15 credit hours on courses related to nonprofit management which will count towards the elective requirement for the Bachelor of Arts in Public Service degree. SPA's affiliation with the Nonprofit Leadership Alliance gives students the opportunity to earn the Certified Nonprofit Professional credential through completion of the Nonprofit Management concentration coursework and additional required extracurricular activities. Contact Danielle Varda for more information about this credential. To declare this concentration please see your advisor.

Take the following required courses:

- PUAD 3003 - Introduction to Nonprofit Organizations
- PUAD 3004 - Managing Nonprofit Organizations

Choose $\mathbf{3}$ courses from the following list of Nonprofit electives:

- PUAD 3005-Collaboration Across Sectors
- PUAD 4004 - Building Public and Financial Support for Nonprofit Organizations
- PUAD 4007 - Nonprofit HR: Governance, Staff, Volunteer Management
- PUAD 4020 - Social Entrepreneurship


## Recording Arts Emphasis, Audition Track, Music BS

## Introduction

Please click here to see general Music \& Entertainment Industry Studies information.
The recording arts emphasis focuses on contemporary analog and digital technology as it is used in music recording, sound reinforcement and media applications (Internet, video games, interactive art installations, etc.). While mastering technology skills and formats, musicians also study the artistic and aesthetic applications of technology to recording, reinforcement, composition and performance.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.
- The Bachelor of Science (BS) in Music has a competitive application process. Please refer to the Department of Music \& Entertainment Industry Studies website for detailed guidelines and information.
- Students who wish to pursue the recording arts emphasis, audition track, are required to pass an entrance audition on their primary instrument or voice as part of the departmental application process, and to pass varying levels of performance proficiency as part of the curriculum. Students must also gain admission to the recording arts emphasis before being able to take any of the upper-division (3000/4000 level) recording arts course work. Please see the recording arts website and contact the College of Arts \& Media at CAM@ucdenver.edu for further information and any updates.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Arts \& Media Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. To earn a BS in Music, students must complete musicianship courses, Music \& Entertainment Industry Studies core courses and requirements from one of the four emphasis areas: performance, singer/songwriter, music business or recording arts.
2. A minimum grade of $C(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C - (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.

Take all of the following Musicianship course groups:

- PMUS 1100 - Music Theory I
- PMUS 1110 - Ear Training and Sight Singing I
- PMUS 1023 - Piano Class I
- PMUS 1200-Music Theory II
- PMUS 1210 - Ear Training and Sight Singing II
- PMUS 1024 - Piano Class II
- PMUS 2100 - Music Theory III
- PMUS 2110 - Ear Training and Sight Singing III
- PMUS 1025 - Piano Class III
- PMUS 2200 - Jazz Theory
- PMUS 1026 - Piano Class IV
- PMUS 1__ Applied Instrument/Voice (1 semester hour)
- PMUS 1500-General Recital
- PMUS___ Ensemble (1 semester hour) Note: Students must complete PMUS 1470 - Performance Practice Ensemble during their first or second semester of Applied Instrument/Voice.
- PMUS $1 \_$__ Applied Instrument/Voice (1 semester hour)
- PMUS 1500 - General Recital
- PMUS___ Ensemble (1 semester hour)
- PMUS 2 $\qquad$ Applied Instrument/Voice (1 semester hour)
- PMUS 1500 - General Recital
- PMUS___ Ensemble (1 semester hour)
- PMUS 2 $\qquad$ Applied Instrument/Voice (1 semester hour)
- PMUS 1500-General Recital
- PMUS $\qquad$ Ensemble (1 semester hour)

Take all of the following Musicianship courses:

- PMUS 3830 - History and Literature of Music I
- PMUS 3831 - History and Literature of Music II
- PMUS $\qquad$ Music History Elective (3 semester hours)
- PMUS $\qquad$ Ensemble (1 semester hour)
- PMUS $\qquad$ Ensemble (1 semester hour)

Take all of the following Music \& Entertainment Industry Studies Core courses:

- MUSC 2700 - Introduction to Music Business
- MUSC 2540 - Audio Production I
- MUSC 2560 - Audio Production II

Take one of the following Music \& Entertainment Industry Studies Core courses:

- MUSC 3210 - Music and Entertainment Marketing
- MUSC 3220 - Artist Management

Take the following course:

- PHYS 3620 - Sound and Music

Take all of the following Recording Arts Emphasis courses (available only to students accepted to emphasis):

- MUSC 3550 - Critical Listening for Recording Arts
- MUSC 4550 - Audio Production III
- MUSC 4560 - Mastering \& Advanced Digital Audio
- MUSC 4505 - Audio Post Production I
- MUSC 4580 - Audio Production Seminar I
- MUSC 4581 - Audio Production Seminar II

Take seven semester hours of Recording Arts Emphasis electives.
Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for lists of approved electives and more information about this emphasis.

## Recording Arts Emphasis, Non-Audition Track, Music BS

## Introduction

Please click here to see general Music \& Entertainment Industry Studies information.
The recording arts emphasis focuses on contemporary analog and digital technology as it is used in music recording, sound reinforcement and media applications (Internet, video games, interactive art installations, etc.). While mastering technology skills and formats, students also study the artistic and aesthetic applications of technology to recording, reinforcement, composition and performance.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.
- The Bachelor of Science (BS) in Music has a competitive application process. Please refer to the Department of Music \& Entertainment Industry Studies website for detailed guidelines and information.
- Students who wish to pursue the recording arts emphasis, non-audition track, are not required to complete an audition as part of the departmental application process. Students will be assessed for varying levels of performance proficiency as part of the curriculum. Students must also gain admission to the recording arts emphasis before being able to take any of the upper-division (3000/4000 level) recording arts course work.

Please see the recording arts website and contact the College of Arts \& Media at CAM@ucdenver.edu for further information and any updates.

## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Arts \& Media Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. To earn a BS in Music, students must complete musicianship courses, Music \& Entertainment Industry Studies core courses and requirements from one of the four emphasis areas: performance, singer/songwriter, music business or recording arts.
2. A minimum grade of $C(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C - (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.

Take all of the following Musicianship course groups:

- PMUS 1100 - Music Theory I
- PMUS 1110 - Ear Training and Sight Singing I
- PMUS 1023 - Piano Class I
- PMUS 1200 - Music Theory II
- PMUS 1210 - Ear Training and Sight Singing II
- PMUS 1024 - Piano Class II
- PMUS 18__ Applied Instrument/Voice, Non-Juried (1 semester hour)
- PMUS 1500 - General Recital
- PMUS 18__ Applied Instrument/Voice, Non-Juried (1 semester hour)
- PMUS 1500 - General Recital

Take all of the following Musicianship courses:

- PMUS 1310 - Sight Reading and Improvisation
- PMUS 2310 - Introduction to Songwriting
- PMUS 3830 - History and Literature of Music I
- PMUS 3831 - History and Literature of Music II
- PMUS ___ Music History Elective (3 semester hours)
- PMUS ___ Ensemble (1 semester hour)
- PMUS ___ Ensemble (1 semester hour)

Take two of the following Musicianship courses:

- PMUS 1025 - Piano Class III
- PMUS 1026 - Piano Class IV
- PMUS 1040 - Class Guitar
- PMUS 1041 - Class Guitar II
- PMUS 1050 - Voice Class I
- PMUS 1060 - Voice Class II

Take one of the following Musicianship courses:

- PMUS 2200 - Jazz Theory
- PMUS 2220 - Commercial Electronic Music Composition
- PMUS 3310 - Intermediate Songwriting

Take three semester hours of Music Performance electives.

Take all of the following Music \& Entertainment Industry Studies Core courses:

- MUSC 2700 - Introduction to Music Business
- MUSC 2540 - Audio Production I
- MUSC 2560 - Audio Production II

Take one of the following Music \& Entertainment Industry Studies Core courses:

- MUSC 3210 - Music and Entertainment Marketing
- MUSC 3220 - Artist Management

Take the following course:

- PHYS 3620 - Sound and Music

Take all of the following Recording Arts Emphasis courses (available only to students accepted to the emphasis):

- MUSC 3550-Critical Listening for Recording Arts
- MUSC 4550 - Audio Production III
- MUSC 4560 - Mastering \& Advanced Digital Audio
- MUSC 4505 - Audio Post Production I
- MUSC 4580 - Audio Production Seminar I
- MUSC 4581 - Audio Production Seminar II

Take nine semester hours of Recording Arts Emphasis electives.

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for lists of approved electives and more information about this emphasis.

## Risk Management and Insurance Major - BS in Business Administration

## Introduction

Please click here to see Business School information.

The risk management and insurance major provides students with the fundamental knowledge needed to accurately measure and manage risk.

Recent crisis situations suggest that understanding risk and how to manage it, and ultimately, how risk management can be used to increase firm value, is essential in the current business environment. The RISK major will provide an overall perspective on risk, with a specific focus on insurance products and their use in mitigating risk in business and personal situations. The insurance industry recognizes many high-level certifications as a sign of expertise, and the RISK course work will provide the knowledge base so that students can proceed to acquire certification in their specific choice of insurance specialty.

Potential job opportunities include positions in the insurance industry and those that require a thorough understanding of risk, such as corporate risk officer or risk manager. In addition, students who choose to work in the insurance industry can make a seamless transition into underwriting, ratemaking, and policy approval. The program will be supported by a unique internship and special project opportunities in the insurance industry, and is the first program of its kind in the region

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a 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
- Business School Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A grade of C or higher must be earned in all courses that are used as prerequisites. These are noted with an asterisk.

Take all of the following required courses:

- FNCE 3500 - Management of Business Capital *
- RISK 3809 - Introduction to Risk Management
- RISK 3949 - Experiential Learning in RMI Industry (Also fulfills BGEN Experiential Learning requirement)
- RISK 4809 - Property \& Casualty Insurance
- RISK 4909 - Corporate Risk Management

Take three of the following courses:

- FNCE 3600 - Financial Markets and Institutions
- FNCE 3700 - Investment and Portfolio Management *
- FNCE 4500 - Corporate Financial Decisions *
- RISK 4509 - Global Risk Management
- RISK 4129 - Practical Enterprise Risk Management
- RISK 4409 - Employee Benefits and Workforce Risk Management
- RISK 4709 - Life \& Health Insurance
- RISK 4950 - Special Topics: Cyber Risk Management \& Cyber Warfare


## Note

All RISK courses have a fixed tuition rate. However, students have the option to apply for RMI scholarships for each RISK course they take.

## Singer/Songwriter Emphasis, Music BS

## Introduction

Please click here to see general Music \& Entertainment Industry Studies information.
Students in the singer/songwriter emphasis complete specialized courses in songwriting and arranging repertoire while developing their performance skills through small performance ensembles and applied private study of voice, accompanying instrument and songwriting.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.
- The Bachelor of Science (BS) in Music has a competitive application process. Please refer to the Department of Music \& Entertainment Industry Studies website for detailed guidelines and information.
- Students who wish to pursue the singer/songwriter emphasis are required to pass an audition on their accompanying instrument AND voice as part of the application process, and to pass varying levels of performance proficiency as part of the curriculum. This includes passing a Sophomore Proficiency in order to maintain singer/songwriter emphasis status. Each student is also required to successfully complete a
junior recital and the 2-credit PMUS 4200 - Senior Recital Project. Please contact the College of Arts \& Media at CAM@ucdenver.edu for further information.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Arts \& Media Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. To earn a BS in Music, students must complete musicianship courses, Music \& Entertainment Industry Studies core courses and requirements from one of the four emphasis areas: performance, singer/songwriter, music business or recording arts.
2. A minimum grade of $C(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C - (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.

Take all of the following Music \& Entertainment Industry Studies Core courses:

- MUSC 2700 - Introduction to Music Business
- MUSC 2540 - Audio Production I
- MUSC 2560 - Audio Production II

Take one of the following Music \& Entertainment Industry Studies Core courses:

- MUSC 3210 - Music and Entertainment Marketing
- MUSC 3220 - Artist Management
- MUSC 3755 - Music Publishing

Take all of the following Musicianship course groups:

- PMUS 1100 - Music Theory I
- PMUS 1110 - Ear Training and Sight Singing I
- PMUS 1023 - Piano Class I
- PMUS 1200 - Music Theory II
- PMUS 1210 - Ear Training and Sight Singing II
- PMUS 1024 - Piano Class II
- PMUS 2100 - Music Theory III
- PMUS 2110 - Ear Training and Sight Singing III
- PMUS 1025 - Piano Class III

Take one of the following Musicianship courses:

- PMUS 1026 - Piano Class IV (for Piano/Voice students)
- PMUS 2750 - Functional Guitar Skills: Acoustic Guitar Styles (for Guitar/Voice students)
- PMUS 2751 - Functional Guitar Skills: Electric Guitar Styles (for Guitar/Voice students)

Take all of the following Musicianship courses:

- PMUS 3830 - History and Literature of Music I
- PMUS 3831 - History and Literature of Music II
- PMUS___ Music History Elective (3 semester hours)

Take all of the following Singer/Songwriter Emphasis course groups:

- Either PMUS 1574 - Applied Guitar, Singer/Songwriter or PMUS 1644 - Applied Piano, Singer/Songwriter Note: Students must complete both semesters of applied instrument lessons on their primary audition instrument.
- PMUS 1500 - General Recital
- PMUS___ Ensemble (1 semester hour) Note: Students must complete PMUS 1470 - Performance Practice Ensemble during their first or second semester of Applied Music.
- Either PMUS 1574 - Applied Guitar, Singer/Songwriter or PMUS 1644 - Applied Piano, Singer/Songwriter Note: Students must complete both semesters of applied instrument lessons on their primary audition instrument.
- PMUS 1500-General Recital
- PMUS____ Ensemble (1 semester hour)
- PMUS 1734 - Applied Voice, Singer/Songwriter
- PMUS 1500 - General Recital
- PMUS___ Ensemble (1 semester hour)
- PMUS 1734 - Applied Voice, Singer/Songwriter
- PMUS 1500 - General Recital
- PMUS___ Ensemble (1 semester hour)
- PMUS 3772 - Applied Singer/Songwriter
- PMUS 1500 - General Recital
- PMUS___ Ensemble (1 semester hour)
- PMUS 3772 - Applied Singer/Songwriter
- PMUS 1500 - General Recital
- PMUS $\qquad$ Ensemble (1 semester hour)
- PMUS 4772 - Applied Singer/Songwriter
- PMUS 1500 - General Recital
- PMUS___ Ensemble (1 semester hour)
- PMUS 4772 - Applied Singer/Songwriter
- PMUS 1500 - General Recital
- PMUS___ Ensemble (1 semester hour)

Take all of the following Singer/Songwriter Emphasis courses:

- PMUS 3200 - Popular Music Performance Skills
- PMUS 3310 - Intermediate Songwriting
- PMUS 3320 - Popular Music Arranging
- PMUS 4060 - Music Theory Analysis
- PMUS 4310 - Advanced Songwriting
- PMUS 4200 - Senior Recital Project

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for lists of approved electives and more information about this emphasis.

## Sociology BA

## Introduction

Please click here to see Sociology department information.
All prospective majors should contact the undergraduate advisor in Sociology as early in their academic careers as possible for information about the degree requirements. Transfer or returning students should consult with the undergraduate advisor in Sociology concerning completion of the core courses.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their Sociology advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.
- This program is also offered online.


## Declaring This Major

- Click here to go to information about declaring a major


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. The major requires a total of 32 hours.
2. A minimum GPA of 2.0 is required for all courses applying to Sociology requirements.
3. Students must take a minimum of 3 of the 12 credit hours of sociology electives at the 4000 level.
4. The maximum number of hours allowed in sociology is 56 .
5. The department requires that at least 13 hours of sociology be taken from CU Denver faculty. Take all of the following courses, earning a grade of C or better in each:

- SOCY 1001 - Introduction to Sociology
- SOCY 2001 - Inequalities in Social World
- SOCY 3111 - Research Methods or SOCY 3119 - Qualitative Methods
- SOCY 3121 - Statistics or SOCY 3115 - Quantitative Methods \& Analysis
- SOCY 3140 - Sociological Theory
- SOCY 4830 - Senior Capstone: Worklife Practices \& Policies

Note: SOCY 3111 and SOCY 3121 will only be offered through fall 2016. SOCY 3119 and SOCY 3115 will be offered beginning spring 2017.

Take a minimum of $\mathbf{1 2}$ hours and a maximum of 36 hours of electives in sociology (with at least 3 of the 12 additional sociology elective credit hours taken at the 4000 level). An average grade of $C(2.0)$ is required in elective courses.

## Spanish Language, Literature and Culture BA

## Introduction

Please click here to see Modern Languages department information.
The Spanish program studies the language, linguistics, literature, culture and civilization of Spain, Spanish America and the Spanish-speaking areas of the United States.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major
- To be admitted to major status in Spanish, students must have an overall GPA of C+ (2.3).


## General Requirements

To earn a degree, students must satisfy all requirements in each of the 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
- Click here for information about Academic Policies


## Program Requirements

1. The minimum grade acceptable in any course applied to a Spanish major or minor is a C- (1.7).
2. The GPA in all courses applied to a Spanish major at CU Denver must be 2.5.
3. No courses taken on a pass/fail basis may be credited toward a Spanish major or minor.
4. The BA in Spanish requires 36 semester hours of upper-division course work in Spanish though up to 6 hours may be taken in related fields.
5. A minimum of 18 semester hours of Spanish course work for the major, and 9 hours for the minor, must be taken from Spanish faculty at CU Denver.
6. Courses taken at other institutions while a student is enrolled at CU Denver may be applied to the major only with departmental approval before enrollment in those courses.
7. Before enrolling in their final semester in the language, Spanish majors must be evaluated by the faculty in oral and written skills. Students must see their Spanish advisor for specific information.
8. Students majoring in Spanish for the BA degree must complete 36 semester hours of upper-division course work, at least 12 of which must be at the 4000 -level. At least 30 semester hours must be taught in Spanish. Take the following required course:

- SPAN 3101 - Introduction to the Study of Literature

Take at least one course on the literature of Spain.
Take at least one course on the literature of Spanish America.
Take the following required language skills and theory course:

- SPAN 3060 - Hispanic Phonetics: Theory and Practice

Take two additional courses on Language Skills and Theory.
Take two of the following Culture and Civilizations of Spain or Spanish America courses:

- 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 3270 - Bilingual Communities: Spanish as a Language of Contact
- SPAN 4330 - Modern Culture of Spain through Film and Narrative

Take four Spanish electives at the 4000 -level. Up to two of these electives may be taken outside the department in the following related fields of study:

- ANTH 3121 - Language, Culture, and Communication
- ANTH 4320 - Archaeology of Mexico and Central America
- ENGL 3160 - Language Theory
- ENGL 3798 - International Perspectives in Literature and Film
- ENGL 4601 - Principles and Practices of Second Language Acquisition
- ENGL 4460 - Contemporary World Literature
- ETST 3108 - Chicano/a and Latino/a History
- ETST 3350-Colonial Latin America
- ETST 3408-Social Psychology of Latinos/as
- ETST 3838 - History of the Mexican American in Colorado
- ETST 4616 - Selected Topics: Chicanos/as and Latinos/as
- ETST 4768 - Chicano/Chicana Narrative and Social History
- FREN 3--- Any upper-division course in French
- FREN 4--- Any upper-division course in French
- GEOG 3130-Central America and the Caribbean
- GEOG 3140 - Geography of South America
- GRMN 3--- Any upper-division course in German
- GRMN 4--- Any upper-division course in German
- HIST 3345 - Immigration and Ethnicity in American History
- HIST 3350-Colonial Latin America
- HIST 3365 - Aztlan in the United States: Chicano History from 1821
- HIST 3460 - Modern Latin American History
- HIST 4411 - Modern Mexico
- HIST 4412 - Mexico and the United States: People and Politics on the Border
- HIST 4415 - Social Revolutions in Latin America
- HIST 4417 - Commodities and Globalization
- LING 2000 - Foundations of Linguistics
- LING 3100 - Language in Society
- MLNG 4690 - Methods of Teaching Modern Languages
- MLNG 4691 - Methods of Teaching Modern Languages II
- PSCI 4235 - Politics and Markets in Latin America
- PSCI 4545 - Immigration Politics
- PSCI 4554 - Chicano and Latino Politics
- SPAN 3--- Any upper-division course in Spanish not already applying to a major requirement
- SPAN 4--- Any upper-division course in Spanish not already applying to a major requirement
- Upper-division courses in another language


## Spanish, International Language and Culture for the Professions Option BA

## Introduction

Please click here to see Modern Languages department information.

This option in the Spanish major offers career possibilities, both in government and private industry, at home and abroad. Languages are useful in business, industry, commerce, civil service, law, library science, media, science, economics, health and social sciences. Students who follow this course of study could also qualify as teachers of general business subjects in bilingual as well as traditional school systems. (However, students who wish to be certified to teach Spanish in the public schools should consult the department for information concerning the undergraduate language licensure program.)

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major
- International Spanish for the Professions is a controlled-enrollment major that takes two years to complete. Interested students should contact the Spanish advisor in the Department of Modern Languages to declare the major. This should be done as early as possible in the student's academic career, but not later than the second semester of the sophomore year.
- To be admitted to major status in Spanish, students must have an overall GPA of C+ (2.3).
- Prerequisites: (These courses do not count toward the major total of 45 semester hours)
- ECON 2012 - Principles of Economics: Macroeconomics
- ECON 2022 - Principles of Economics: Microeconomics
- MATH 1070 - Algebra for Social Sciences and Business or
- MATH 1110 - College Algebra or
- higher level math course
- SPAN 2110 - Second Year Spanish I or
- SPAN 2120 - Second Year Spanish II


## General Requirements

To earn a degree, students must satisfy all requirements in each of the 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
- Click here for information about Academic Policies


## Program Requirements

1. The minimum grade acceptable in any course applied to a Spanish major or minor is a C-(1.7).
2. The GPA in all courses applied to a Spanish major or minor at CU Denver must be 2.5.
3. No courses taken on a pass/fail basis may be credited toward a Spanish major or minor.
4. The BA in Spanish ILCP track requires 30 semester hours of upper-division course work in Spanish and 15 additional hours in Business.
5. A minimum of 18 semester hours of Spanish course work for the major, and 9 hours for the minor, must be taken from Spanish faculty at CU Denver.
6. Courses taken at other institutions while a student is enrolled at CU Denver may be applied to the major only with departmental approval before enrollment in those courses.
7. Before enrolling in their final semester in the language, Spanish majors must be evaluated by the faculty in oral and written skills. Students must see their Spanish advisor for specific information.
Take all of the following Spanish courses:

- SPAN 3101 - Introduction to the Study of Literature
- SPAN 3700 - Spanish for International Business I
- SPAN 3710 - Spanish for International Business II
- SPAN 3782 - Introduction to Translation I or
- SPAN 3792 - Introduction to Translation II

Take two of the following language skills and theory courses:

- 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

Take one of the following courses.

- SPAN 3213 - Contemporary Latin American Culture and Institutions
- SPAN 3223 - Contemporary Spanish Culture and Institutions

Take one of the following courses:

- SPAN 3212 - Spanish American Culture and Civilization
- SPAN 3213-Contemporary Latin American Culture and Institutions (if not taken for the above requirement)
- SPAN 3221 - Culture and Civilization of Spain I
- SPAN 3222 - Culture and Civilization of Spain II
- SPAN 3223 - Contemporary Spanish Culture and Institutions (if not taken for the above requirement)
- SPAN 3225 - Special Topics In Hispanic Culture
- SPAN 3230 - Ibero-American Cultures through Film
- SPAN 3240 - Food Metaphors: Ibero-American Cuisine and Culture
- SPAN 3270 - Bilingual Communities: Spanish as a Language of Contact

Take two Spanish electives at the 4000 -level.

Take all of the following Business courses:

- ACCT 2200 - Financial Accounting and Financial Statement Analysis
- MGMT 1000 - Introduction to Business
- MGMT 3000 - Managing Individuals and Teams
- MGMT 4400 - Environments of International Business
- MKTG 3000 - Principles of Marketing


## Sports Business Major - BS in Business Administration

## Introduction

Please click here to see Business School information.

The Sports Business major offers students the opportunity to prepare for a competitive career in the sports industry. This program was developed with industry partners who are in need of qualified leaders in the field. Sports firms are currently hiring at the entry level and promoting from within. The Sports Business major will provide you with the knowledge and skills you need to begin your career in the exciting field of sports.

The program includes faculty who are active researchers in the field, prominent guest speakers, and the opportunity to participate in exciting internships with local leaders in the industry. Some companies where students have interned include Broncos Football Club, Kroenke Sports and Entertainment, United States Olympic Committee and Anschutz Entertainment group.

Students completing the Sports Business major are also eligible to participate in the London Calling study abroad program. This unique opportunity provides students with a firsthand look at the global sports management field through behind-the-scenes visits to key sports and entertainment organizations and venues in London. The two-week elective includes visits to the UK's top sports facilities, including Arsenal FC, O2 Arena, Wimbledon, 2012 Olympic committee and more.

Students enrolled in the program will learn about diverse, cross-functional areas of the sports industry, including:
Sports industry trends \& growth opportunities
Sports media trends \& new media
Stadium financing \& development
Naming rights \& sponsorships
Sports specific marketing plans
Sports pricing \& fan loyalty
Negotiating contracts with athletes
Team valuations
Labor law and collective bargaining agreements
Pro team and college athletics management
Money flow in teams - managing revenue streams
Outdoor sports industry - marketing \& management
Community relations and event planning
Olympics bid process and finances

## Program Delivery

This is an on-campus program.

## Declaring This Major

Click here to go to information about declaring a major.

## General Requirements

To earn a 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
- Business School Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

Take the following required course:

- MKTG 4250 - Sports Marketing

Take two of the following Business Practices courses:

- MKTG 4251 - Music and Media Marketing
- MKTG 4252 - The Business of Sports
- MKTG 4620 - Customer Service Strategies
- MKTG 4730 - New Product Development

Take one of the followoing Research Skills courses:

- MKTG 3100 - Marketing Research
- MKTG 3200 - Buyer Behavior

Take one of the following Sales \& Comm Skills courses:

- MGMT 4330 - Mastering Management
- MKTG 3300 - Social Media in Business
- MKTG 4000 - Advertising
- MKTG 4700 - Personal Selling and Sales Management

Take one of the following Application courses:

- MGMT 4900 - Project Management and Practice
- MKTG 4050 - Applied Marketing Management
- MKTG 4834 - Global Sports \& Entertainment Management
- SPTB 3939

Take one 4000-level MKTG or MGMT elective

## Transmedia Sculpture Emphasis, Fine Arts BFA

## Introduction

Please click here to see general Visual Arts information.
The transmedia sculpture emphasis combines 21st Century digital practice with 5000-year-old metal casting process. Students are exposed to a vast array of art making tools, media and methods in art making - including metals, wood, casting and mold making, performance, live media and interactive digital work.

Through a sequence of studio classes, students develop a portfolio appropriate for professional exhibition, admission to graduate school and preparation for work in art fabrication, design and public art.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.
- Consult the College of Arts \& Media at CAM@ucdenver.edu for more information.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- CU Denver Core Curriculum
- College of Arts \& Media Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minimum grade of $\mathrm{C}(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C - (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
2. All upper-division visual arts courses must be taken at CU Denver unless approved otherwise by Department of Visual Arts faculty.
3. At least 27 semester hours of visual arts credits (at any level) must be taken at CU Denver.
4. At least 24 semester hours of total visual arts courses must be upper-division.

Take all of the following Visual Arts Foundation courses:

- FINE 1100 - Drawing I
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2155 - Introduction to Digital Photography
- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II

Take one of the following Transmedia Sculpture Emphasis courses (entry-level):

- FINE 2405 - Introduction to Digital Design
- FINE 2500 - Bronze Casting

Take all of the following Transmedia Sculpture Emphasis courses (entry-level):

- FINE 2510 - Wood and Metal Sculpture
- FINE 3405 - Introduction to Digital Video

Take all of the following Transmedia Sculpture Emphasis courses (completion of all above courses highly recommended before continuing emphasis):

- FINE 3500 - Installation Art
- FINE 3505 - Environmental Art
- FINE 3510 - Mold Design \& Casting
- FINE 3525 - Modeling for Manufacture
- FINE 3530 - Electronic Art
- FINE 3550 - Iron Casting
- FINE 4500 - Electronic Performance
- FINE 4505 - Sculptural Rendering
- FINE 4510 - Advanced Sculpture

Take the following Visual Arts course:

- FINE 4990 - Contemporary Art: 1960 to Present

Take three semester hours of Pre-20th Century Art History elective.

Take three semester hours of upper-division Art History elective.

Take nine semester hours of Studio Arts electives.

Take six semester hours of Visual Arts electives. These may include studio, lecture, internship or art history courses.

Take the following Capstone course:

- FINE 4950 - Studio BFA Thesis

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for lists of approved electives and more information about this emphasis.

## Undergraduate Minors

## Anthropology Minor

## Introduction

Please click here to see Anthropology department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minimum of 18 semester hours in anthropology must be completed with a grade of $\mathrm{C}(2.0)$ or better in each course.
2. Nine of the 18 hours must be upper division.
3. Nine hours must be taken from CU Denver faculty. Note: All upper division core courses must be taken from CU Denver faculty in order to count for specific requirements. Upper division courses from other schools will only count as electives:
Take at least three of the following courses:

- ANTH 1302 - Introduction to Archaeology
- ANTH 1303 - Introduction to Biological Anthropology
- ANTH 2102 - Culture and the Human Experience
- ANTH 3101 - Foundations of Cultural Anthropology
- ANTH 3301 - World Prehistory
- ANTH 3512 - Human Evolution

Take 7-9 semester hours of Anthropology electives.

## Art History Minor

## Introduction

Please click here to see general Visual Arts information.
The art history minor familiarizes students with the principal traditions of art history and includes a selection of lecture courses in advanced studies. This program provides a strong introduction to historical developments while developing analytical skills in research, writing and visual culture.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- To declare this minor, please see College of Arts \& Media Advising and Student Services in Arts Building, 177. Consult the College of Arts \& Media at CAM@ucdenver.edu for more information.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students may transfer up to six semester hours of non-CU Denver courses toward a College of Arts \& Media minor. All other courses must be taken at CU Denver.
2. A minimum grade of $C(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C- (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
3. Students may use up to six semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to the major requirements.
Take all of the following Art History Minor courses:

- FINE 2600 - Art History Survey I
- FINE 2610 - Art History Survey II

Take nine semester hours of upper-division Art History electives.

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for lists of approved electives and more information about this minor.

## Astrophysics Minor

## Introduction

Please click here to see Physics department information.
Astrophysics is an important and well-represented subdiscipline of physics. It includes the study of the solar system, galactic and extra-galactic astrophysics, as well as cosmology. A minor in this field combines a theoretical approach with observational analysis. There is also opportunity to do research in this field.

While the Department of Physics offers minors in both physics and astrophysics, it is not possible to receive minors in both fields. A physics minor is not an option for physics majors.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. The astrophysics minor requires a total of 17 semester hours, in which no grade below a C (2.0) may be used to meet the requirements for the minor.
2. At least 6 semester hours taken for the minor must be completed at the Denver Campus.
3. Requirements for the minor in astrophysics may be used to fulfill the requirements of the major in physics.
4. However, a student majoring in physics who wants to minor in astrophysics needs to take 15 semester hours in astrophysics that do not overlap with the major.
Take the following required course:

- PHYS 1052 - General Astronomy I

Take either of the following sequences:

- PHYS 2010 - College Physics I
- PHYS 2020 - College Physics II
- PHYS 2030 - College Physics Lab I
- PHYS 2040-College Physics Lab II
or
- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I
- PHYS 2331-General Physics II: Calculus-Based
- PHYS 2341-General Physics Lab II

Take one of the following courses:

- PHYS 3040 - Modern Cosmology
- PHYS 3050-General Astronomy II
- PHYS 3070 - Physical Cosmology
- PHYS 3082 - Energy and the Environment
- PHYS 3411 - Thermal Physics
-     * PHYS 3840 - Independent Study: PHYS
- PHYS 3939 - Internship
- PHYS 4510 - Optics
- PHYS 4550 - Astrophysics
-     * PHYS 4840 - Independent Study: PHYS
-     * PHYS 4920 - Advanced Undergraduate Seminar
-     * PHYS 4980 - Advanced Physics Topics
*Topics in these classes vary, as do the number of credits which can be earned. See departmental advisor for approval.


## Behavioral Cognitive Neuroscience Minor

## Introduction

Please click here to see Psychology department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minor in Behavioral Cognitive Neuroscience requires the completion of 15 semester hours with a grade of $C(2.0)$ or better in each course.
2. At least 9 upperdivision semester credit hours (3000 4000 level courses) must be taken from CU Denver faculty.
3. The minimum grade for any single course in the minor is C-.
4. Overall minimum GPA is 2.0 in these courses.
5. None of these courses can be taken on a Pass/Fail basis. They must receive a final letter grade.

Take all of the following courses:

- PSYC 1000 - Introduction to Psychology I
- PSYC 2220 - Biological Basis of Behavior

Take one of the following Cognitive Neuroscience courses:

- PSYC 3144 - Human Cognition
- PSYC 3205 - Human Development I: Child Psychology
- PSYC 3222 - Principles of Learning and Behavior
- PSYC 3305 - Abnormal Psychology
- PSYC 3810 - Neuropsychology

Take one of the following Behavioral Neuroscience courses:

- PSYC 3104 - Behavioral Genetics
- PSYC 3254 - Introduction to Animal Behavior
- PSYC 3262 - Health Psychology
- PSYC 3263 - Hormones and Behavior
- PSYC 3265 - Drugs, Brain and Behavior
- PSYC 3724 - Developmental Psychobiology
- PSYC 3822 - Aging, Brain and Behavior
- PSYC 3832 - Neural Basis of Learning
- PSYC 4054 - Behavioral Neuroscience
- PSYC 4164 - Psychology of Perception
- BIOL 4165 - Neurobiology

Take one additional course from either the Cognitive Neuroscience or Behavioral Neuroscience lists

If a student is a Psychology major (either a Bachelor of Arts or Bachelor of Science), their PSYC 1000 and PSYC 2220 courses do not count toward this minor. Additionally, if a student is a Bachelor of Science Psychology major, the PSYC 4054 course does not count toward this minor. As a substitution, for these courses Psychology (B.A.) majors must take an additional 2 courses from either the Cognitive Neuroscience and/or Behavioral Neuroscience category lists above.

For B.S. in Psychology majors, an additional 3 courses from these lists must be taken to substitute for PSYC 1000, 2220 and 4054. Courses counted toward this minor cannot also be used to fulfill a Psychology major core requirement, including an upper division Psychology elective core.

Thus, to fulfill this minor a nonPsychology major must successfully complete a total of 5 courses, including PSYC 1000 , 2220 and 3 of the upper division courses from the 2 lists above, with at least one course from each of the lists. Psychology majors must complete a total of 5 courses from the two lists above with a minimum of 1 from each category. None of the 5 courses used toward the minor can also be used toward their Psychology major requirements.

Students can take both PSYC 4054 Behavioral Neuroscience and BIOL 4165, but only one can count toward this minor.

## Biology Minor

## Introduction

Please click here to see Integrative Biology department information.
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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete all biology core requirements (20-23 hours), of which a minimum of 9 hours must be completed in residence at CU Denver.
2. All biology courses applied to the undergraduate biology minor must be completed within 10 years of graduation.
3. A GPA of 2.0 must be attained in BIOL coursework.
4. Biology and ancillary courses must be completed with a letter grade of C-(1.7) or higher.

Take all of the following required courses:

- BIOL 2051 - General Biology I or
- BIOL 2095 - Honors General Biology I
- BIOL 2071 - General Biology Laboratory I or
- BIOL 2096 - Honors General Biology Lab I
- BIOL 2061 - General Biology II or
- BIOL 2097 - Honors General Biology II
- BIOL 2081 - General Biology Laboratory II or
- BIOL 2098 - Honors General Biology Lab II

Take two of the following courses:

- BIOL 3411 - Principles of Ecology
- BIOL 3611 - General Cell Biology
- BIOL 3832-General Genetics
- BIOL 3445 - Introduction to Evolution

Take at least two upper division Biology courses, including at least one lab.

Take all of the following ancillary courses:

- CHEM 2031-General Chemistry I or
- CHEM 2081 - Honors General Chemistry I
- CHEM 2038 - General Chemistry Laboratory I or
- CHEM 2088 - Honors General Chemistry I Laboratory
- CHEM 2061 - General Chemistry II or
- CHEM 2091 - Honors General Chemistry II Lecture
- CHEM 2068 - General Chemistry Laboratory II or
- CHEM 2098 - Honors General Chemistry II Laboratory


## Biophysics Minor

## Introduction

Please click here to see Physics department information.
The minor in biophysics enables students with primary interests in biology, chemistry, health sciences, mathematics, anthropology, psychology, or other disciplines to explore the deep connections between fundamental physical
processes and the functions and development of life. Using mathematical and computational models as well as precise experimental measurements and advanced instrumentation, biophysics explores living processes within a framework that builds upon fundamental physics concepts of mechanics, electrodynamics, statistical physics, and quantum physics. Students taking a minor in biophysics will be able to synthesize some or all of these areas of physics at a mature level of understanding into their primary field(s) of study, bringing an enriched array of intellectual and experimental tools to the pursuit of their professional goals.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minimum 2.0 GPA is required to qualify for the minor.
2. At least 12 hours of required minor courses must be completed with a grade of C or higher.
3. Students must complete at least 9 hours of the minor in residence at CU Denver.

Take all of the courses in one of the following four course Physics lecture/lab sequences:

- PHYS 2010 - College Physics I
- PHYS 2030 - College Physics Lab I
- PHYS 2020-College Physics II
- PHYS 2040 - College Physics Lab II
or
- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I
- PHYS 2331-General Physics II: Calculus-Based
- PHYS 2341 - General Physics Lab II

Take both of the following upper division biophysics courses:

- PHYS 3151 - Biophysics Outlook I
- PHYS 3161 - Biophysics Outlook II

Take at least one of the following:

- PHYS 3251 - Biophysics of the Body or
- PHYS 3252 - Biophysics of the Body NM
- PHYS 3451-Biophysics of the Cell or
- PHYS 3452 - Biophysics of the Cell NM
- PHYS 4351 - Bioelectromagnetism or
- PHYS 4352 - Bioelectromagnetism NM
- PHYS 4840 - Independent Study: PHYS
- Additional biophysics-related special topics or elective courses may be approved by the department advisor. Such courses include topics such as Radiation Physics in Biomedicine, Computational Modeling in Biophysics, Nonlinear Dynamics in Biomedicine, and specialized courses in biophysics-related instrumentation.
**Note: the courses containing "NM" are versions whose math and use of prior physics knowledge has been adjusted in terms of grading and assignments - for students who have taken fewer math and physics courses than physics majors (NM stands for non-majors). Both versions are meant to be content rich and conceptually challenging, still require quantitative modeling, and are offered simultaneous by the same instructor. Students with strong math backgrounds are encouraged to take the "majors" (xx51) version. Either one or the other version can count toward the minor, but not both.


## Business Administration Minor

## Introduction

Please click here to see Business School information.
Business minors can give you an edge in your career.
By adding a business minor to a liberal arts, arts and media, architecture, or engineering degree you will gain an edge in the job market. The business minor allows you to focus on a specific area of business that fits your career goals.

The Business School offers all undergraduate students at CU Denver the opportunity to add a minor in business administration.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- As a CU Denver Undergraduate student, you need a 2.0 GPA to be accepted for a business minor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Please see an advisor regarding residency requirements.
2. If the student has already taken the equivalent of one or more of these courses, other higher-level business courses may be substituted with Business School approval.
3. Students must maintain or exceed a 2.0 GPA to graduate with the minor.

Take all of the following courses:

- MGMT 1000 - Introduction to Business or
- ISMG 2050 - Introduction to Business Problem Solving
- ACCT 2200 - Financial Accounting and Financial Statement Analysis

Take three of the following courses:

- BANA 3000 - Operations Management
- BLAW 3050 - Business Law and Ethics
- ENTP 3000 - Principles of Entrepreneurship
- FNCE 3000 - Principles of Finance
- INTB 3000 - Global Perspectives
- ISMG 3000 - Technology In Business
- MGMT 3000 - Managing Individuals and Teams
- MKTG 3000 - Principles of Marketing


## Chemistry Minor

## Introduction

Please click here to see Chemistry department information.
The objective of the chemistry minor is to provide broad introductory course work and laboratory experience to science majors without the more technical mathematical and chemical prerequisites required of the chemistry major. The chemistry minor is open to all CLAS students and should prove beneficial for science majors, pre-professional health science majors and students seeking science education certification.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- To register your minor in chemistry, please visit the CLAS advising office in NC 4002. After establishing your minor status, you are encouraged to meet with the chemistry minor advisor, Dr. Pricilla Burrow.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minimum of 24 semester hours of chemistry courses, including at least 15 at the upper division level.
2. A minimum 2.0 GPA for chemistry courses taken at CU Denver.
3. All chemistry minor courses must be taken for a letter grade rather than with the pass/fail grading option.
4. No grade below C- (1.7) may be applied towards a minor in chemistry.
5. A minimum of 9 upper-division hours of chemistry must be taken at the Denver campus.

Take all of the following chemistry minor courses:

- CHEM 2031-General Chemistry I or
- CHEM 2081 - Honors General Chemistry I
- CHEM 2038 - General Chemistry Laboratory I or
- CHEM 2088 - Honors General Chemistry I Laboratory
- CHEM 2061 - General Chemistry II or
- CHEM 2091 - Honors General Chemistry II Lecture
- CHEM 2068 - General Chemistry Laboratory II or
- CHEM 2098 - Honors General Chemistry II Laboratory
- CHEM 3411 - Organic Chemistry I or
- CHEM 3481 - Honors Organic Chemistry I
- CHEM 3421 - Organic Chemistry II or
- CHEM 3491 - Honors Organic Chemistry II

Take one of the following upper division laboratory courses:

- CHEM 3018 - Inorganic Chemistry Laboratory
- CHEM 3118 - Analytical Chemistry Laboratory
- CHEM 3418 - Organic Chemistry Laboratory I
- CHEM 3488 - Honors Organic Chemistry Laboratory I
- CHEM 4828 - Biochemistry Lab

Take two of the following upper division elective courses:

- CHEM 3011 - Inorganic Chemistry
- CHEM 3111 - Analytical Chemistry
- CHEM 3810 - Biochemistry or
- CHEM 4810 - General Biochemistry I *
- CHEM 4511 - Physical Chemistry: Thermodynamics and Kinetics
- CHEM 4521 - Physical Chemistry: Quantum and Spectroscopy
- CHEM 4700 - Environmental Chemistry
- CHEM 4840 - Independent Study: Chem
- CHEM 5010 - Advanced Inorganic Chemistry
- CHEM 5110 - Advanced Analytical Chemistry
- CHEM 5310 - Advanced Organic Chemistry
*Only one biochemistry course may count towards the minor. Non-majors wishing to focus in biochemistry should consult the requirements for the Biochemistry Certificate program.


## Chinese Studies Minor

## Introduction

Please click here to see Modern Languages department information.
The Minor Program in Chinese Studies is an interdisciplinary program offering a specialized study of China through coursework in the related disciplines of language, anthropology, history, geography, philosophy, and political science. China's economic and political presence is increasingly prominent in the United States. CU Denver is uniquely positioned to make use of its location as the cultural, economic and political center of the Rocky Mountain region and of its diverse, well-trained and highly qualified faculty to offer a course of interdisciplinary studies related to China. Students may choose to focus either on General Chinese Studies or Chinese Language and Culture. On the one hand, General Chinese Studies encourages an interdisciplinary approach of accepting courses from various departments that focus on history, political science, art, philosophy, and more from China, Taiwan, Hong Kong, and Singapore. On the other hand, Chinese Language and Culture further develops students' linguistic competence and cultural awareness. The minor program offers a wide variety and levels of Mandarin Chinese language and culture courses that not only improve students' communication skills but also give a deeper look into different aspects of Chinese culture.

The program in Chinese studies offers a host of study abroad opportunities throughout the academic year and every summer. CU Denver has on-going programs at the China Agricultural University in Beijing, and programs in Taipei, as well as an association with Yunnan University in Kunming. Study abroad programs of five weeks to one year in length may be arranged, and program faculty can help students enroll in intensive Chinese language programs in Taiwan or on the mainland. Students pursuing the minor in Chinese language and area studies are encouraged to complete the program with a period of residence and study in China.

Program Director: Dr. I-hao Victor Woo<br>Advisor: Dr. I-hao Victor Woo<br>Email: i-hao.woo@ucdenver.edu

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. The minor requires a minimum of 15 semester hours.
2. A minimum of 9 semester hours must be taken from CU Denver campus faculty. Courses taken at other institutions may be applied to the minor but only with approval of the Chinese faculty advisor in the Department of Modern Languages.
3. All courses must be completed with a grade of $\mathrm{C}(2.0)$ or better. Take the following required courses:

-     * CHIN 1000 - China and the Chinese *CHIN 1000 should be taken toward the beginning of the minor. OR
- CHIN 1071 - Mandarin Chinese for the Professions AND
- CHIN 2110 - Second Year Chinese I

Take an additional nine hours from the following courses, or any course approved in advance by the Chinese Studies Program Director. Students are encouraged to contact the program advisor to devise a study plan:

- ANTH 4000 - Special Topics in Anthropology
- CHIN 2120 - Second Year Chinese II
- CHIN 3010 - Advanced Intermediate Chinese
- CHIN 3200 - Contemporary Chinese Society and Culture
- CHIN 3300 - Special Topics on Chinese Film
- FINE 4524 - Topics in Art History II: Modern and Contemporary Art
- FINE 4750 - Arts of China
- GEOG 3160-Geography of China
- HIST 3470 - Intro to East Asia: Since 1800
- HIST 4420 - Traditional China: China to 1600
- HIST 4421 - Modern China
- HIST 4422 - Lvng thr Mao's China: Life, Mat. Cult, Movies, 1949-76
- LING 3100 - Language in Society
- MLNG 4690 - Methods of Teaching Modern Languages
- MLNG 4691 - Methods of Teaching Modern Languages II
- PSCI 4186 - East Asia in World Affairs
- PSCI 4615 - Politics and Government of China
- PSCI 4726 - Seminar on U.S. and China Relations
- PHIL 3666 - Asian Philosophies and Religions
- PHIL 3981 - Chinese Philosophy and Culture
- RLST 3660 - Chinese Philosophy and Culture

China-related travel study, taken under the following course numbers:

- ANTH 4995 - Travel Study
- CHIN 3995 - Travel Study
- COMM 4995 - Travel Study
- PSCI 4995 - Travel Study


## Communication Minor

## Introduction

Please click here to see Communication department information.
Knowledge in most professional settings means little unless it can be communicated effectively. The minor in communication is designed to provide students who are not communication majors with knowledge and skills in communication that are useful in any discipline or profession.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This program is offered both on-campus and online.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. The Communication minor requires 18 semester hours (six courses).

Take all of the following Communication courses:

- COMM 1011 - Fundamentals of Communication
- COMM 1021 - Introduction To Media Studies
- COMM 2020-Communication, Citizenship, and Social Justice

Take one of the following Communication courses:

- COMM 1001 - Presentational Speaking
- COMM 2050 - Business and Professional Speaking

In addition to the four courses specified above, students must take two upper-division courses ( 3000 level or above).

## Computer Science Minor

## Introduction

Please click here to see Computer Science department information.
The Department of Computer Science and Engineering offers a minor in computer science. The requirements for the minor are listed below.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- To declare the CS minor, students must complete and send a Minor Declaration Form to the engineering dean's office before the final two semesters leading to graduation. Once declared, students are required to meet with a CS advisor to complete the CS minor coursework form.
- For more information or an advisiong appointment, contact the Department of Computer Science and Engineering at 303-315-1408 or visit the Lawrence Street Center (1380 Lawrence Street), suite 800.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Any undergraduate student currently enrolled in a CU Denver degree program with a major other than computer science and engineering may earn a minor in computer science. This includes students from the College of Engineering and Applied Science, the College of Liberal Arts and Sciences, the Business School, the College of Arts \& Media and the School of Public Affairs.
2. A student must fulfill all prerequisites for the courses he/she selects. See the catalog course descriptions for prerequisite information for each course.
3. The student must complete (with a C- or better) three additional computer science and engineering courses (CSCI) at the 3000 -level or higher from an approved list of computer science courses, available in the CSE department, and must obtain an approved plan from a Computer Science and Engineering faculty advisor.
4. All computer science and engineering courses (CSCI) numbered 3000 and above must be taken from the CSE department at the University of Colorado Denver and be from the approved list of courses for the minor in computer science.
5. At the time of graduation, the student must have a CU Denver cumulative GPA of 2.0 and must have a 2.0 GPA for the eight classes taken for the minor.
6. All courses taken for the minor must be completed with a grade of C - or better.

Take all of the following required courses:

- MATH 1401 - Calculus I
- CSCI 1410 - Fundamentals of Computing
- CSCI 1411 - Fundamentals of Computing Laboratory
- CSCI 2312 - Object Oriented Programming
- CSCI 2421 - Data Structures and Program Design
- CSCI 2511 - Discrete Structures

Take three additional computer science courses at the 3000 -level or higher with the approval of an undergraduate advisor (see \#3 above for details).

## Creative Writing Minor

## Introduction

Please click here to see English department information.
The creative writing minor gives students the opportunity to complement their area of major study with experience writing and reading poetry or fiction.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete a total of 15 hours.
2. Only courses completed with a grade of $\mathrm{C}(2.0)$ or better may be counted toward the minor.
3. Students must take ENGL 1020 before beginning the minor.
4. Courses in a minor cannot be counted toward the English major or English Writing major. Take all of the following required courses:

- ENGL 2154 - Introduction to Creative Writing
- ENGL 2450 - Introduction to Literature

Take one of the following courses:

- ENGL 3020 - Poetry Workshop
- ENGL 3050 - Fiction Workshop

Take one of the following courses:

- ENGL 4025 - Advanced Poetry Workshop
- ENGL 4055 - Advanced Fiction Workshop
- ENGL 3 $\qquad$ Writing Workshop (3000-level not previously taken)

Students who have taken ENGL 3020, take one of the following Poetry courses:

- ENGL 4160 - Poetics
- ENGL 4166 - History of American Poetry
- ENGL 4320 - History of Poetry in English
- ENGL 4800 - Special Topics in Creative Writing (poetry emphasis)

Students who have taken ENGL 3050, take one of the following Fiction courses:

- ENGL 4200 - History of the English Novel I
- ENGL 4210 - History of the English Novel II
- ENGL 4230 - The American Novel
- ENGL 4236 - The American Short Story
- ENGL 4800 - Special Topics in Creative Writing (fiction emphasis)


## Criminal Justice Minor

## Introduction

Please click here to see School of Public Affairs information.

A minor in criminal justice will provide students with foundational knowledge of criminology and criminal justice. Students majoring in sociology, psychology, political science, and related fields are likely to interact with the criminal justice system in their careers and would benefit from the addition of the CJ minor to their degree plan.

## Program Delivery

- This is an on-campus and online program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minor in Criminal Justice requires 18 semester hours of course work.
2. A maximum of 9 transfer credits may be applied to the minor.
3. Electives must be taken from outside the student's major.

Take all of the following required courses:

- CRJU 1000 - Criminology and Criminal Justice: An Overview
- CRJU 2041 - Crime Theory and Causes
- CRJU 4042 - Corrections
- CRJU 4043 - Law Enforcement
- CRJU 4044 - Courts and Judicial Process

Take three additional upper-division elective courses in Criminal Justice or ancillary fields.

## Culturally and Linguistically Diverse Education Minor

## Introduction

Please click here to see School of Education and Human Development information.
The Culturally and Linguistically Diverse Education (CLDE) Minor is designed to provide students with an understanding of culturally and linguistically diverse students, families and communities, particularly in their relationship to public institutions. This minor is a powerful addition to majors in elementary education, sociology, psychology, ethnic studies, gender studies, public health, communication, the humanities, and anyone becoming a teacher as it provides professionals with a strong understanding of how to serve culturally and linguistically diverse students in school and community environments.

## Program Delivery

This is an on-campus program with a variety of delivery options for many of our courses including hybrid, evening, and online courses.

## Declaring This Minor

If you are currently a CU Denver student please contact the Undergraduate Advisor in the School of Education \& Human Development for specific meeting times to discuss the process.

## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. To complete a minor in CLDE, a students must complete 15 credit hours of CLDE and other related courses with a minimum grade of $\mathrm{C}(2.0)$.
2. Of those CLDE courses, at least 9 credits must be completed at the University of Colorado Denver.
3. Transfer courses must be approved by faculty and/or advisor to apply to the minor.

Students will be able to create an emphasis that best suits their professional goals and needs. There are different course requirements depending on whether students are becoming teachers and have Elementary Education as a declared major and those who are interested in CLDE but majoring outside of education. All CLDE minors must take a minimum of 3 CLDE courses from the list below. Students must select 2 additional courses either in CLDE or from other approved programs as listed below.
Note: Bolded courses are already required for the Elementary Education major, and as such cannot count towards the minor. Students in the Elementary Education BA wishing a CLDE minor should take 2 additional CLDE classes and 3 from the approved courses from outside of CLDE.

Take a minimum of $\mathbf{3}$ courses from the following list (each course is 3 credit hours):

- CLDE 1000 - Language, Identity, \& Power: International Perspectives
- CLDE 3840 - Independent Study in CLDE
- CLDE 4020-Culturally \& Linguistically Responsive Classroom Communities
- CLDE 4030** - Language Development of Multilingual Learners
- CLDE 4160** - History \& Law of Bilingual \& Immigrant Education
- CLDE 4820** - Teaching Multilingual Learners
- CLDE 5140 - Language, Culture \& Educational Equity (with advisor approval only)

Approved Courses from outside CLDE (each course is 3 credit hours):

- ECED 4650 - Dual Language Learners Learning and Development
- EDFN 4000 - Food Justice in City \& Schools
- EFDN 4010: Social Foundations and Cultural Diversity in Urban Education
- HDFR 3250 - Families in Global Perspectives
- HDFR 4040 - Latino Families in School and Communities
- PSCI 1111 - First Year Seminar Immigration: The Struggle for Social Justice
- SPED 4740: Linguistically Responsive Special Education
**These courses are highly recommended for those who are becoming teachers, but not in the Elementary Education BA.
Please contact the advisor for the complete course list.


## Design Essentials Minor

## Introduction

Please click here to see general Visual Arts information.

The design essentials minor explores print design and production through theoretical and historical contexts, experience with design software and an understanding of how designed pieces get produced. Undergraduates learn the language and terminology of graphic design and how to communicate a message through visual design. Students develop the knowledge and skills necessary to take a design from a digital production environment to the printed page.

## Program Delivery

- This program can be completed with a combination of online and hybrid courses.


## Declaring This Minor

- To declare this minor, please see College of Arts \& Media Advising and Student Services in Arts Building, 177. Consult the College of Arts \& Media at CAM@ucdenver.edu for more information.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students may transfer up to six semester hours of non-CU Denver courses toward a College of Arts \& Media minor. All other courses must be taken at CU Denver.
2. A minimum grade of $C(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C - (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
3. Students may use up to six semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to the major requirements.

Take all of the following Design Essentials Minor courses:

- FINE 2415 - Typography Studio
- FINE 2420 - The Language of Design : What Makes Design Work
- FINE 2425 - Essential Type-Design Applications
- FINE 3040 - Color Theory: Studio and Screen-Based Practice
- FINE 3420 - Printing Preparation and Process

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for more information about this minor.

## Digital Design Minor

## Introduction

Please click here to see general Visual Arts information.
The digital design minor integrates creative thinking with experience using digital applications in the production of graphic design and motion graphics. Configured as an interdisciplinary arts and design laboratory, this minor offers a practical understanding of how digital technology can be applied to help solve human, social and business problems.

## Program Delivery

- This is an on-campus program


## Declaring This Minor

- Students who are applying for entrance into the digital design minor must submit a portfolio, as described below. The digital design minor accepts applications only once a year. Students who meet the requirements and are accepted will be able to register for upper-division digital design courses.


## ELIGIBILITY

The student has completed, or is in the process of completing, the following courses with a grade of $\mathrm{C}(2.0)$ or better in each:

- FINE 2405 - Introduction to Digital Design
- FINE 2415 - Typography Studio

FINE 2405 and 2415 are both in the fall at CU Denver.
Those applying to the minor (and not the digital design emphasis) are not required to complete the following course or its college-level equivalent:

- FINE 1400 - Two Dimensional Design

However, students must show equivalent studio work in their portfolio applications.

## PORTFOLIO APPLICATION REQUIREMENTS

To properly prepare the application, refer to the digital design website for detailed instructions. Applications are due by November 1 at 5:00pm (Mountain Time) or on the following business day if the deadline falls on a weekend or holiday.

Applications are only accepted online via the portfolio service SlideRoom.com and must be formatted to the specifications listed on the digital design website. The portfolio samples should consist of images (.jpgs) and embedded video. Written work should be integrated into the submission. It is VERY important for students to visit the submission page early and begin uploads two weeks before the due date. Late submissions due to technical difficulties on the part of the applicant will NOT be accepted.

## Portfolio of Images

The portfolio must include 13-16 electronic examples of the student's creative work, consisting of a Design Project (including a writing sample) and works from FINE 2405 Introduction to Digital Design and FINE 2415 Typography. Two to five additional creative works may also be included within the maximum of 16 works altogether.

## Course Transcripts

These may be official or unofficial transcripts from CU Denver and previous post-secondary institutions. The CU Denver transcript must show any current semester courses.

## EVALUATION PROCESS

- A committee of design faculty members reviews the portfolio and grades. For acceptance, the committee looks for an understanding of 2D design, writing and presentation skills.
- If not admitted into the digital design minor, a student has the choice of attempting the review process again the following year or applying to another minor. Students not admitted into the digital design minor are encouraged to schedule a meeting with a digital design faculty member to learn of ways to improve portfolios for future submissions.
Broad criteria for the portfolio evaluation are as follows:
- Process Research and Analysis - Does the portfolio demonstrate an ability to compile relevant information by identifying resources necessary to formulate a deeper understanding of context(s)?
- Design Principles - Does the portfolio demonstrate awareness of design principles through various means of technical production and successful color experimentation?
- Visual Literacy - Does the portfolio reflect sensitivity to design concepts and visual logic, and does it demonstrate fundamental understanding of composition? Does the work communicate effectively?
- Use of Imagery - Does the portfolio demonstrate a student's potential ability to create and develop visual form in response to communication problems?
- Expressive Typography - Does the portfolio demonstrate a burgeoning awareness of the importance of risk-taking while solving typographic design problems?
- Generating and Selecting Ideas - Does the portfolio demonstrate the student's ability to generate multiple solutions to artistic problems and utilize process to select the most effective solutions?
- Technical Skill - Does the portfolio reflect a strong knowledge of tools and materials and an aptitude for digital design skills?
- Conceptual Skills - Do the portfolio and writing sample demonstrate analytical thinking as it applies to visual art and design? Is there a developing conceptual exploration of the digital medium?
- Writing Sample - Does the writing demonstrate the student's critical thinking skills regarding the work and ability to address an assignment in a notable way?
- Presentation - Is the portfolio well-crafted and well organized in content and presentation? Are all of the required components included?
- Academic Performance - Do the student's grades reflect a commitment to learning and growth? QUESTIONS

For more portfolio information, please contact CAM@ucdenver.edu or digital design area head Bryan Leister at bryan.leister@ucdenver.edu

## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. All courses for this minor must be taken at CU Denver unless approved otherwise by the digital design faculty advisor.
2. A minimum grade of $C(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C - (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
3. Students may use up to six semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to major requirements.
Take all of the following Digital Design Minor courses (entry level):

- FINE 2405 - Introduction to Digital Design
- FINE 2415 - Typography Studio
- FINE 4600 - History of Modern Design:Industrial Revolution-Present

Take all of the following Digital Design Minor courses (available only to students accepted to minor via portfolio review):

- FINE 3414 - Motion Design I
- FINE 3415 - Design Studio I
- FINE 3424 - Interactive Media
- FINE 3434-3D Motion Design

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and more information about this minor.

## Digital Media and Learning Minor

## Introduction

Please click here to see School of Education and Human Development information.

For more information, click here.

In our globally connected world, learning happens not just in schools but everywhere: in the workplace, at home, and in informal settings. Competency with technology, especially for creating and sharing knowledge, can further your chosen career in education, business, healthcare, technical fields, or the humanities. Social media and multimedia tools can accelerate learning on the job and set you on a course for lifelong, self-directed learning. You will enhance your career by keeping up with knowledge advances and establishing a strong professional presence online.

CU Denver's undergraduate minor in Digital Media and Learning will help you:

- Be a better student, using technology to create products and learn effectively
- Be a better employee, using social media and other tools to improve your knowledge and work performance
- Help others use learning technologies in school, work, and home

The 15-credit minor in Digital Media and Learning is offered through the School of Education and Human Development and the faculty in Information and Learning Technologies (ILT).

## Program Delivery

- The first course INTE 2500 Digital Media and Learning is taught on campus. The rest of the courses and electives are taught online.


## Declaring This Minor

- If you are currently a CU Denver student please contact the Undergraduate Advisor in the School of Education \& Human Development for specific meeting times to discuss the process.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. To complete a minor in Digital Media and Learning, a student will need to complete 15 credit hours of Digital Media and Learning courses with a minimum grade of $\mathrm{C}+(2.3)$.
2. Of those Digital Media and Learning courses, at least 12 credits must be completed at the University of Colorado Denver.
3. Transfer courses must be approved by faculty and/or advisor to apply to the minor.
4. Your minor program of study is developed in consultation with an academic advisor and requires a minimum of 15 credits of undergraduate courses.

Take all of the following courses:

- INTE 2500 - Digital Media and Learning
- INTE 4340 - Learning with Digital Stories
- INTE 4665 - Social Media and Digital Cultures

Take six semester hours from the following elective courses:

- INTE 4300 - Media Literacy
- INTE 4320 - Games and Learning
- or an INTE elective approved by the program/advisor


## Economics Minor

## Introduction

Please click here to see Economics department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly
urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students minoring in economics must complete a minimum of 15 semester hours in economics.
2. At least three upper-division courses must be completed at CU Denver only the equivalent of ECON 2012 and ECON 2022 can be transferred in from other institutions and no grade below C - will count toward fulfillment of the minor requirements.
3. At least two upper-division courses must not overlap with courses required in the student's major program. Take the following required courses:

- ECON 2012 - Principles of Economics: Macroeconomics
- ECON 2022 - Principles of Economics: Microeconomics and
- Three upper-division electives in economics: 9 semester hours (ECON 3100 - Economics of Race and Gender is acceptable)


## Environmental Sciences Minor

## Introduction

Please click here to see Geography and Environmental Sciences department information.
The environmental sciences minor offers students exposure to the breadth of environmental issues. Students emphasize the natural/physical sciences, and may strategically incorporate the social sciences and humanities.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must acheive a grade of C or above on all GEOG courses that count toward the minor and must achieve a minimum cumulative grade point average of 2.0.
2. The lecture/laboratory sequence can be part of the requirements for the major, but not in the student's major department (i.e., a biology major cannot use the general biology sequence, but could use the general chemistry sequence, which is also required for the biology major).
3. Students must take a minimum of 9 hours of the upper-division courses at the Downtown Campus.
4. At least 9 semester hours of environmental science courses must be completed at CU Denver.
5. Many of the upper-division courses have prerequisites; the student must check the catalog for prerequisite requirements for these courses.
6. The four upper-division elective courses for the Environmental Sciences minor cannot be from the student's major discipline, even if the particular course is not counted toward the major.
7. Students may not earn credit towards the minor for pass/fail courses.
8. Undergraduate students may count up to 3 credit hours of independent study (any combination of ENVS $3840,4840,4880)$ towards elective credit in the minor as approved by the undergraduate coordinator. Take two of the following lecture/laboratory courses (see Minor Requirements, note 2, above):

- BIOL 2051 - General Biology I and
- BIOL 2071 - General Biology Laboratory I
- BIOL 2061 - General Biology II and
- BIOL 2081 - General Biology Laboratory II
- CHEM 2031-General Chemistry I and
- CHEM 2038 - General Chemistry Laboratory I
- CHEM 2061 - General Chemistry II and
- CHEM 2068 - General Chemistry Laboratory II
- ENVS 1042 - Introduction to Environmental Sciences
- GEOL 1072 - Physical Geology: Surface Processes
- GEOL 1082 - Physical Geology: Internal Processes
- PHYS 2010 - College Physics I and
- PHYS 2030 - College Physics Lab I
- PHYS 2020 - College Physics II and
- PHYS 2040 - College Physics Lab II

Take three of the following courses outside of the student's major discipline (see Minor Requirements above):

- BIOL 3411 - Principles of Ecology
- CHEM 4700 - Environmental Chemistry (see Minor Requirements, note 4, above)
- ECON 4540 - Environmental Economics
- ENVS 3082 - Energy and the Environment or
- PHYS 3082 - Energy and the Environment
- ENVS 4720 - Climate Change: Causes, Impacts and Solutions
- ENVS 4740 - Geography of Soils
- GEOG 3232 - Weather and Climate
- GEOG 3240 - Colorado Climates
- GEOG 4020 - Earth Environments and Human Impacts
- GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 4090 - Environmental Modeling with Geographic Information Systems
- GEOG 4230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 4240 - Applied Geomorphology
- GEOG 4265 - Sustainability in Resources Management
- GEOG 4270 - Glacial Geomorphology
- GEOG 4280 - Environmental Hydrology
- GEOG 4335 - Contemporary Environmental Issues
- GEOG 4420 - The Politics of Nature
- GEOG 4440 - Science, Policy and the Environment
- GEOG 4720 - Climate Change: Causes, Impacts and Solutions
- GEOG 4731 - Mountain Biogeography
- GEOL 4030 - Environmental Geology
- PSCI 4354 - Environmental Politics


## Ethics Minor

## Introduction

Please click here to see Philosophy department information.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A total of 15 semester hours is required for an ethics minor, with a minimum grade of $C(2.0)$ in each course.
2. For those students who major in philosophy and minor in ethics, no course can satisfy the requirements for both. For example, if a student takes PHIL 4150, Twentieth Century Ethics, it cannot satisfy the requirement in the major for a course in 19th or 20th century philosophy.

Take the following required course:

- PHIL 1020 - Introduction to Ethical Reasoning

Take four of the following courses:

- PHIL 3002 - Ancient Greek Philosophy
- PHIL 3150 - History of Ethics
- PHIL 3200 - Social and Political Philosophy
- PHIL 3250 - Business Ethics
- PHIL 3280 - War and Morality
- PHIL 3500 - Ideology and Culture: Racism and Sexism
- PHIL 3550 - Philosophy of Death and Dying
- PHIL 4150 - Twentieth Century Ethics
- PHIL 4242 - Bioethics
- PHIL 4250 - Environmental Ethics
- PHIL 4260 - Philosophy of Law
- PHIL 4500 - Feminist Philosophy
- PHIL 4700-Seminar in a Major Philosopher
- PHIL 4812 - Special Topics in Philosophy
- PHIL 4833 - Existentialism


## Ethnic Studies Minor

## Introduction

Please click here to see Ethnic Studies department information.
The minor in ethnic studies offers students the opportunity to enhance and broaden the body of knowledge acquired in their chosen majors and to apply it in a variety of careers involving intercultural relations.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program and all courses are available online.


## Declaring This Minor

- Please click here to go to information about declaring a minor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students are required to complete 18 semester hours (6 courses) in ethnic studies with a grade of $C$ or better.
2. These hours are to be taken with CU Denver faculty (any exception needs to be approved by the ethnic studies advisor).
3. At least 9 of the required 18 hours must be in courses numbered 3000 or above.

Take the following required course:

- ETST 2000 - Introduction to Ethnic Studies

Take four upper- or lower-division ETST courses from the following four focal U.S. racial/ethnic groups:

- Asian-Americans
- African-Americans
- American Indians
- Chicanos/as and Latinos/as

Take one ETST elective course of your choice, including any of the following:

- 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 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 4960 - Senior Seminar in Ethnic Studies
- ETST 4995 - Travel Study


## Film and Television Production Minor

## Introduction

Please click here to see general Theatre, Film \& Video Production information.
This minor gives students a hands-on experience in both production and post-production, providing a foundation of basic skills and procedures in the film and television industry.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- To declare this minor, please see College of Arts \& Media Advising and Student Services in Arts Building, 177. Consult the College of Arts \& Media at CAM@ucdenver.edu for more information.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students may transfer up to six semester hours of non-CU Denver courses toward a minor. All other courses must be taken at CU Denver.
2. A minimum grade of $C(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C - (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
3. Students may use up to six semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to the major requirements.

Take all of the following Film and Television Production Minor courses:

- FITV 1035 - Introduction to Filmmaking
- FITV 1040 - Lighting, Grip, and Sound Introductory Workshop
- FITV 2050 - Production II Film and Television Techniques

Take two of the following Film and Television Production Minor courses:

- FITV 2040 - Introduction to Digital Effects
- FITV 2220 - Acting for Film and Television
- FITV 2570 - Directing for Film and Television
- FITV 3350-Editing Aesthetics

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for more information about this minor.

## Film and Television Writing Minor

## Introduction

Please click here to see general Theatre, Film \& Video Production information.
Students develop the writing skills (fiction and non-fiction) for the development of episodic television and film scripts. Students also learn the practices and mechanics expected of professional screenwriters.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- To declare this minor, please see College of Arts \& Media Advising and Student Services in Arts Building, 177. Consult the College of Arts \& Media at CAM@ucdenver.edu for more information.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students may transfer up to six semester hours of non-CU Denver courses toward a minor. All other courses must be taken at CU Denver.
2. A minimum grade of $C(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C- (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
3. Students may use up to six semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to the major requirements.

Take one of the following Film and Television Writing Minor courses:

- FITV 1000 - Fundamentals of Visual Media
- FITV 1200 - Fundamentals of Television

Take all of the following Film and Television Writing Minor courses:

- FITV 1550-Scriptwriting 1 - Fiction
- FITV 1600 - Writing Short Film:Non Fiction
- FITV 3400 - Feature Screenwriting
- FITV 3500 - Writing for Episodic Television

Please contact the College of Arts \& Media at CAM@ ucdenver.edu for course sequencing, any prerequisite updates and for more information about this minor.

## Film Studies Minor

## Introduction

The film studies minor offers students the opportunity to gain an informed understanding of the sophisticated medium of film, its language and history. Courses cover critical writing about cinema, creative screenwriting, the evolution of Hollywood movies, international cinema and film in its cultural context. The film studies minor makes a valuable complement to a range of undergraduate majors.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your CLAS advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete a total of 15 hours for the film studies minor.
2. A minimum grade of $C$ (2.0) is required for each course applied toward a CAM major, minor or certificate requirement. A grade of C - (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
3. None of the required 15 hours may be taken Pass/Fail.
4. A minimum of 9 hours must be taken with CU Denver faculty.
5. Students are also advised to fulfill the liberal arts and sciences core curriculum writing requirements before enrolling in upper-division topics in film courses.
6. No more than two online film studies courses can be counted toward the minor.
7. Courses in a minor cannot be counted toward the English major or English Writing major; consult an English advisor for substitutions.
Take all of the following required courses:

- ENGL 2250 - Introduction to Film
- ENGL 3070 - Film History I
- ENGL 3080 - Film History II

Take two additional courses:

- ENGL 2450 - Introduction to Literature
- ENGL 2415 - Introduction to Movie Writing
- ENGL 3075 - Film Genres *
- ENGL 3085 - Film Directors *
- ENGL 3200 - From Literature to Film
- ENGL 3300-Topics in Film *
- ENGL 4420 - Film Theory and Criticism
- ENGL 4770 - Topics in English: Film and Literature (film topics only) *
*Courses are repeatable if taken as a different genre/director/topic.


## Finance Minor

## Introduction

Please click here to see Business School information.

Students in other undergraduate schools and colleges at CU Denver wishing to complete the Finance minor need to complete the course work described below.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- To declare the Finance minor, students must have a 3.0 GPA, either cumulative or from their last 24 completed semester hours.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must maintain or exceed a 2.0 GPA to graduate with the minor.
2. A student must take 12 of the 15 hours of required business courses in the minor while in residence at the University of Colorado Denver. If a student has already taken the equivalent of one or more of these courses at another university, other higher-level business courses may be substituted with the approval of the Business School.
3. Students must have declared the Finance minor to register for any of the upper-division FNCE courses or petition separately to take each of these courses.
Take all of the following required prerequisite and proficiency courses:

- MATH 1070 - College Algebra for Business or
- MATH 1110 - College Algebra
- ECON 2012 - Principles of Economics: Macroeconomics
- ECON 2022 - Principles of Economics: Microeconomics
- BANA 2010 - Business Statistics

Take all of the following courses:

- ACCT 2200 - Financial Accounting and Financial Statement Analysis
- FNCE 3000 - Principles of Finance

Take two of the following courses:

- FNCE 3500 - Management of Business Capital
- FNCE 3600 - Financial Markets and Institutions
- FNCE 3700 - Investment and Portfolio Management
- FNCE 4370 - International Financial Management

Take one of the following courses:

- FNCE 4500 - Corporate Financial Decisions
- FNCE Elective (Can be from list above or any other upper-division FNCE course)


## French Minor

## Introduction

Please click here to see Modern Languages department information.
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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Students may declare a major in the CLAS advising office, but should see the French advisor to discuss course selections.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students minoring in French must complete 15 semester hours of upper-division courses taught in French (courses numbered 3000 and above).
2. The minor in French must include at least one language skills class, chosen from the classes listed below. Take one of the following courses:

- FREN 3010 - French Phonetics and Pronunciation
- FREN 3020 - Conversation through Film
- FREN 3050 - Advanced Grammar and Composition
- FREN 3060 - Advanced French Language Skills

Take four additional upper-division French courses taught in French.
Note: FREN 3200 is taught in English, and does not count toward the minor.

## Fundamentals of Business Minor

## Introduction

The Business School offers all undergraduate students at CU Denver the opportunity to add a minor in fundamentals of business.

Students enrolled in this minor have the benefit of following their passion with their undergraduate degree while adding the business knowledge and skills employers want and entrepreneurs need. By adding a business minor to a liberal arts, arts and media, architecture, or engineering degree, you will gain an edge in the job market.

## Program Delivery

- This is an on-campus program

Declaring This Minor

- As a CU Denver undergraduate student, you need a 2.0 GPA to be accepted for a fundamentals of business minor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

## Program Requirements

1. Please see an advisor regarding residency requirements.
2. Students may only use transfer coursework in place of BMIN 1000. All remaining courses must be completed at CU Denver.
3. Students must maintain or exceed a 2.0 GPA to graduate with the minor.

Take all of the following courses:

- BMIN 1000 - Introduction to Business or
- MGMT 1000 - Introduction to Business
- BMIN 3001 - Fundamentals of Management and Marketing
- BMIN 3002 - Fundamentals of Accounting and Finance
- BMIN 3003 - Essential Skills for Today's Workplace or
- ENTP 3000 - Principles of Entrepreneurship or
- ENTP 3200 - Essentials in Entrepreneurship
- BMIN 3004 - Innovation, Strategy, and Business Planning


## Geography Minor

## Introduction

Please click here to see Geography and Environmental Sciences department information.
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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete 15 semester hours in geography.
2. The minor is flexible and does not have core requirements. A student can elect to take any combination of GEOG courses, including a minimum of 6 credit hours of upper-division courses.
3. Students must achieve a grade of C (2.0) or above on GEOG courses that count toward the minor, and must achieve a minimum cumulative grade point average of 2.0.
4. At least 9 semester hours of geography courses must be completed at CU Denver.
5. Undergraduate students may count up to 3 credit hours of independent study (GEOG 3840, 4840, 4880/GEOL 3840, 4840, 4880) towards elective credit in the minor as approved by the undergraduate advisor.
6. Students may not earn credit towards the minor for pass/fail courses.
7. Students may not double-count courses for the Geography minor and another minor in the department, nor for the Geography major, the Sustainability Minor, or the GISci Certificate.

## German Studies Minor

## Introduction

Please click here to see Modern Languages department information.
The German Studies minor uses an interdisciplinary approach to learning language that also provides the opportunity to discover the culture of the speakers of German, which can include course work from outside the department. Students improve their German language skills as well as develop cultural knowledge in fields such as history, political science, philosophy, the arts and any of the multiple fields to which the German culture has so richly contributed.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students minoring in German Studies must maintain a minimum overall GPA of 2.3, and a GPA of 2.5 in courses applied to the German Studies minor.
2. The minimum grade acceptable in any course applied to the German Studies minor is a $C(2.0)$.
3. No courses taken on a pass/fail basis may be credited toward the German Studies minor.
4. Course Substitutions: With prior consent from a CU Denver German faculty advisor, students may apply substitute course work to fulfill the required areas of study. This would include, for example, courses taken outside the department, transfer credit, study abroad course work, etc. Please consult with a CU Denver German faculty advisor to receive permission for course substitution. GRMN 1010 and GRMN 1020 can NOT be applied toward this minor.
5. The German Studies minor requires 6 semester hours of upper-division course work.
6. A minimum of 12 semester hours must be taken from German faculty at CU Denver.
7. Courses taken at other institutions while a student is enrolled at CU Denver may be applied to the minor only with departmental approval before enrollment in those courses.
8. Students who have completed course work through an approved exchange program must also complete a residency requirement of a minimum of 6 credits of upper-division German courses.
9. This residency requirement must include at least 3 semester hours of language skills courses at CU Denver.
10. No portion of these 18 credits may be applied to satisfy the requirement of any specific program outside the German Studies minor (such as satisfying core curriculum requirements) other than the total number of credits required for an undergraduate degree.
11. Students may apply up to 6 semester credits toward the German minor from UCD courses outside the department provided that the content of the course work is pertinent to the study of German language and/or culture (such as courses in history, political science, philosophy, etc.). Students must receive prior approval from a German faculty advisor to apply credits from outside the department toward the German minor.
12. Students enrolled in a degree program, and who complete the Certificate in Applied German Language Skills, satisfy the requirements for a German Studies minor and can earn both upon graduation.
13. Students may apply up to 6 semester credits of independent study or internship coursework toward the German minor.
Take 6 semester-hours of Language Proficiency courses.
Skills courses are those taught in German with the goal of improving the student's abilities in spoken and written German.

Any courses taught in German at the 3000 level or higher may be applied toward language proficiency (example courses: GRMN 3030, GRMN 3050, GRMN 3060). Only courses taught in German may apply toward the language proficiency minimum.

Take 3 semester-hours of required courses in German Culture.

Culture courses are those whose primary content focuses on the aspects of German society, current and/or historical issues. Students may complete this component in any language of instruction. (Examples of such courses include GRMN 1000, GRMN 3200, and may include courses outside the department.)

Take 9 semester-hours of electives.
These credits may be chosen from any course offerings with a GRMN prefix (such as GRMN 3200) and may also include GRMN 1000, GRMN 2110 and GRMN 2150 with permission from a German faculty advisor. Please note that GRMN 1010 and GRMN 1020 can NOT be applied toward the German minor.

## Health Humanities Minor

## Introduction

Please click here to see Health Humanities department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see you advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students declaring a minor in HEHM must have at least a 2.5 overall GPA.
2. No grade lower than a C will count towards the minor.
3. At least 12 credits for the minor must be taken with CU Denver faculty.
4. Students may count ONE relevant transfer course toward their elective requirements for the minor.
5. Students may double count no more than two courses from their major or University General Education Core toward the minor elective requirements.
Take the following required course:

- HEHM 3100 - Introduction to Health Humanities

Take three elective courses. The following list is not exhaustive and continues to be updated. One elective course can be a service learning course or independent study approved by an HEHM advisor. Electives must come from at least two different disciplines and must be at the 3000 or 4000 -level.

- ANTH 4600 - Medical Anthropology
- COMM 4500 - Health Communication
- ETST 3002 - Ethnicity, Health and Social Justice
- GEOG 3501 - Geography of Health
- GEOG 4235 - GIS Applications in the Health Sciences
- GEOG 4710 - Disasters, Climate Change, and Health
- HIST 4307 - History of Sexuality
- HIST 4503 - Topics in History of Science
- PBHL 3030 - Health Policy
- PBHL 3070 - Perspectives in Global Health
- PBHL 3041 - Health, Culture and Society
- PBHL 4040 - Social Determinants of Health
- PHIL 4242 - Bioethics
- PSCI 4330 - U.S. Health Policy
- PSYC 3262 - Health Psychology
- SOCY 3440 - Medical Sociology
-     * COMM 4550 - Rhetorics of Medicine \& Health
-     * ENGL 4290 - Rhetoric and the Body
-     * HIST 4345 - Gender, Science, and Medicine: 1600 to the Present
-     * HIST 4346 - Medicine and Society: the Ancients to the Present

Take one capstone course, identified by an asterisk* in the above list. These courses incorporate substantial original writing or research projects designed to promote broad reflection about the role of culture, society, and ethics in medicine. Students should choose these courses at the culmination of their minor course work.

## History Minor

## Introduction

Please click here to see History department information.
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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your College advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students interested in a minor in history are required to complete 18 hours of course work.
2. At least 12 semester hours must be completed at CU Denver.
3. No grade below a $C$ (2.0) will count toward the minor.
4. Students minoring in history must take at least 9 credit hours of upper division (3000-and 4000-level) History courses.

Take a minimum of three semester hours in each of the following areas:

- United States
- Europe
- World.

At least six semester hours of these electives must be upper-division history courses.

## Human Development and Family Relations Minor

## Introduction

Please click here to see School of Education and Human Development information.
The Human Development and Family Relations (HDFR) minor prepares students to effectively serve and understand culturally and linguistically diverse family systems. For students who are interested in becoming family therapist, work in community based organizations or work as a university or college advisor/administrator this minor will provide excellent foundational courses in these areas. It also provides students with a family systems and ecological systems theories foundation of families and how they interact with community and educational contexts.

## Program Delivery

- This is an on-campus program with a variety of delivery options for many of our courses including hybrid, evening, weekend and online courses.


## Declaring This Minor

- If you are currently a CU Denver student please contact the Undergraduate Advisor in the School of Education and Human Development to set up an appointment to discuss the process.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. To earn a minor, students must complete 15 approved credit hours specific to the minor, maintain good academic standing in the courses, must complete their undergraduate degree concurrently, must satisfy all requirements in each of the areas below, in addition to their individual major requirements.
2. To complete a minor in HDFR, a student will need to complete 15 semester hours of HDFR courses with a minimum grade of $\mathrm{C}(2.0)$ including 1 required and 4 electives.
3. Of those HDFR courses at least 9 credits must be completed at the University of Colorado Denver.
4. Transfer courses must be approved by faculty and/or advisor to apply to the minor.

Take one of the following courses:

- HDFR 2000 - Introduction to Family and Community Services
- HDFR 2200 - Love, Family and Human Development

Take four HDFR electives from the following list (or newly approved HDFR courses). Students will be encouraged to select courses that meet their interest and/or career aspirations. All course selections must be approved by an HDFR advisor or HDFR faculty. Please check the university catalog for when courses are offered. Other HDFR courses will be added to the list as they are designed and approved.

- HDFR 1000 - Global Human Development \& Learning
- HDFR 1010 - Life Span Development in Ecological Settings
- HDFR 1020 - Black and Latino Children
- HDFR 2000 - Introduction to Family and Community Services
- HDFR 2110 - Child Ecology
- HDFR 2200 - Love, Family and Human Development (Core approved - Social Sciences)
- HDFR 3100 - Adolescent Ecology
- HDFR 3250 - Families in Global Perspectives (Core approved - International Perspectives)
- HDFR 3500 - Introduction to Higher Education
- HDFR 4000 - Human Sexuality
- HDFR 4003 - Leadership and Organizations
- HDFR 4004 - Family and Comm. Prog. II Grant Writing/Fundraising
- HDFR 4040 - Latino Families in School and Communities
- HDFR 4050 - Foundations of Student Affairs
- HDFR 4090 - Helping Profession Skills in HDFR
- HDFR 4200 - Adult Ecology
- HDFR 4500 - Diversity, Inclusion, Social Justice in Higher Education
- EDFN 3000 - Undocumented Mexican Immigration
- EDFN 4000 - Food Justice in City \& Schools


## Illustration Minor

## Introduction

Please click here to see general Visual Arts information.
The illustration minor is for students interested in broadening their visual communication skills and obtaining an introductory understanding of what is involved in the production of client-driven visual work. Undergraduates explore digital as well as hand-produced techniques and gain a basis for combining the two in a seamless manner in rendered illustrative works. This minor allows students to complement their major area of study with professionally effective visual communication skills.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- To declare this minor, please see College of Arts \& Media Advising and Student Services in Arts Building, 177. Consult the College of Arts \& Media at CAM@ucdenver.edu for more information.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students may transfer up to six semester hours of non-CU Denver courses toward a College of Arts \& Media minor. All other courses must be taken at CU Denver.
2. A minimum grade of $C(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C - (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
3. Students may use up to six semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to the major requirements.

Take all of the following Illustration Minor courses:

- FINE 1400 - Two Dimensional Design
- FINE 2405 - Introduction to Digital Design
- FINE 3001 - Illustration I: Digital Media
- FINE 3002 - Illustration II: Spatial Thinking

Take two of the following Illustration Minor courses:

- FINE 1100 - Drawing I or FINE 2030 - Life Drawing
- FINE 2010 - The Graphic Novel Workshop
- FINE 3300 - Painting, Drawing and the Printed Image
- FINE 3440 - Introduction to Digital Painting
- FINE 3030 - The Media of Drawing or FINE 3995 - Travel Study (Drawing in Italy)

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for more information about this minor.

## International Studies Minor

## Introduction

Please click here to see International Studies department information.
As the globe becomes increasingly connected, students gravitate towards classes that provide the interdisciplinary skills and international awareness required for success in the 21st century. The International Studies minor at CU Denver offers students a unique opportunity to create an individuallytailored and relevant minor based upon a spectrum of Liberal Arts classes.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program, available to students at the Denver campus and International College of Beijing.


## Declaring This Minor

- Denver students: please see your CLAS advisor
- ICB students: please see the International Studies advisor


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. This minor requires a total of 18 semester hours. Please note: Students cannot take more than two upperdivision courses from the same department for the minor.
2. All coursework must be graded at a C or above to be accepted.
3. A minimum GPA of 2.5 is required for all courses listed in International Studies minor requirements.
4. At least 15 credits must be taken at the upper division level.
5. The maximum amount of credit hours a student could receive through independent study courses is 6 .
6. The maximum amount of credit hours a student could receive through pass/fail courses is 3 .
7. Students may be able to complete all 18 credits via online courses.
8. At least 9 hours must be taken on the student's home campus (whether the ICB or Denver).

Take one introductory class from Political Science or History:

- INTS 2020 - Foundations of International Studies
- PSCI 3022 - Political Systems of the World
- PSCI 3042 - Introduction to International Relations
- HIST 4032 - Globalization in World History Since 1945

Take five upper division courses (3000-4000 level) with an international focus.

Courses may come from from Anthropology, Communication, Economics, Ethnic Studies, Geography, History, or Political Science. Students who did not select INTS 2020 Foundations of International Studies for their introductory course are permitted to take that course to fulfill one of the five upper division courses slots.

Students must select as one of their courses a 3000- or 4000-level seminar in a discipline other than their major to ensure that high level work in another field is being performed. Lecture-type courses do not meet this requirement. Representative seminar courses are listed below. Students may also use any relevant Travel Study course to fulfill the seminar requirement. Students may also choose seminar courses not listed below with prior permission of the INTS advisors. Please meet with an advisor for approval of individual courses.

ICB

- PSCI 4186 - East Asia in World Affairs
- PSCI 4216 - International Politics: Human Rights
- PSCI 4236 - American Foreign Policy

Auraria

- ANTH 3142 - Cultural Diversity in the Modern World
- COMM 4720 - Dynamics of Global Communication
- EDFN 3000 - Undocumented Mexican Immigration
- HIST 4461 - The Modern Middle East
- PSCI 4226 - The United Nations in World Affairs

Online

- PSCI 4002 - Topics in Political Science Globalization, Bio-colonialism, and Indigenous Rights
- PSCI 4002 - Topics in Political Science Clictivism Online Social Activism


## Law Studies Minor

## Introduction

Please click here to see Law Studies department information.
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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- To apply for this minor, students must complete and submit a major/minor change declaration form to the CLAS Advising Office in North Classroom, 1030.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A total of 18 semester hours must be completed for the law studies minor.
2. The courses must be taken in residence at CU Denver.
3. A minimum grade of C is required in each course and students must maintain a GPA of 3.0 in courses taken toward the minor.
4. Every course taken for the minor must be upper division.
5. Courses taken for the minor cannot serve to fulfill requirements of the of the undergraduate core, and students should check with their major department to determine whether courses counted toward the law studies minor can fulfill major requirements.
Take the following Foundation course:

- SSCI 4251 / HUMN 4251 - Introduction to Legal Studies

Take two of the following United States Constitutional Thought courses:

- HIST 3231 - Famous U.S. Trials
- PSCI 4477 - Constitutional Law I
- PSCI 4487 - Constitutional Law II
- SOCY 4740 - Courts \& Society

Take one of the following Philosophical Perspectives of Law courses:

- ECON 4230 - Law and Economics
- PHIL 4260 - Philosophy of Law
- PSCI 4427 - Law, Politics and Justice
- SSCI 4050 - Special Topics in Law Studies

Take one of the following Law and Society courses:

- CRJU 4430 - Law and Society
- HDFR 4075 - Family Policy \& Law
- HIST 4308 - Crime, Policing, and Justice in American History
- PSYC 3505 - Psychology and the Law
- SOCY 4700 - Sociology of Law


## Linguistics Minor

Return to: Programs

## Introduction

Please click here to see information about the Department of Modern Languages.
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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

The minor in Linguistics is an interdisciplinary program awarded through the Department of Modern Languages. The minor is designed to guide students through an exact and structured discipline that examines various aspects of the nature of human language. A Linguistics minor may be of particular interest to students majoring in a Foreign Language, as well as majors in fields such as Anthropology, English, Communication, Education, Philosophy, and Sociology. The Linguistics minor is open to all undergraduate students at CU Denver.

Program Delivery

- This is an oncampus program.

Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Upon declaring a minor in Linguistics, each student will be assigned to a faculty advisor with whom the student should consult at least once per semester thereafter. It is especially important that students have their transcripts reviewed by their advisor before enrolling in their final 30 credit hours at CU Denver. Failure to do so may result in delay of graduation.
2. To be admitted to minor status in Linguistics, students must have an overall GPA of C+ (2.3).
3. The minimum grade acceptable in any course applied to a Linguistics minor is C (2.0).
4. The average grade in all courses applied to a Linguistics minor at CU Denver must be 2.5 .
5. No courses taken on a pass/fail basis may be counted toward a Linguistics minor.
6. Students minoring in Linguistics must complete a minimum of 15 credits of coursework pertaining to the field of Linguistics (see required and approved courses below).
7. A minimum of 9 credit hours must be taken from CU Denver faculty.
8. Courses taken at other institutions may be applied to the minor, but only with approval of a Linguistics faculty advisor in the Department of Modern Languages.
9. A minimum of 6 credit hours of coursework applied to the minor must be upper division ( 3000 or above). Take both of the following courses:

- LING 2000 - Foundations of Linguistics
- LING 3100 - Language in Society

Take nine semester hours from the following elective courses:

- ANTH 3121 - Language, Culture, and Communication
- CLDE 1000 - Language, Identity, \& Power: International Perspectives
- CLDE 4030 - Language Development of Multilingual Learners
- CLDE 4820 - Teaching Multilingual Learners
- ENGL 3160 - Language Theory
- ENGL 4080 - History of English Language
- ENGL 4190 - Special Topics in Rhetoric and Writing
- ENGL 4601 - Principles and Practices of Second Language Acquisition
- ENGL 4651 - Second Language Writing
- FREN 3010 - French Phonetics and Pronunciation
- FREN 4600 - History of the French Language
- GRMN 3050 - Phonetics and Pronunciation of German
- GRMN 4050 - Advanced German Phonetics and Language History
- MLNG 4690 - Methods of Teaching Modern Languages
- MLNG 4691 - Methods of Teaching Modern Languages II
- PHIL 2441 - Logic, Language and Scientific Reasoning
- SPAN 3060 - Hispanic Phonetics: Theory and Practice
- SPAN 3270 - Bilingual Communities: Spanish as a Language of Contact
- 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


## Literature Minor

## Introduction

Please click here to see English department information.
This program is designed for students who are interested in the study of English literature but who have elected to major in another area. The recommended series of courses allows students to become acquainted with some of the methods of literary study and with a number of the most important literary works.

The literature minor allows students to complement their area of major study with systematic experience in literature.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your CLAS advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students minoring in literature must complete a total of 15 hours (excluding ENGL 1010, 1020, 2030).
2. None of the required 15 hours may be taken pass/fail.
3. Only courses completed with a grade of $C(2.0)$ or better may be counted toward the minor.
4. A minimum of 9 upper-division hours of work in the minor must be taken with CU Denver English faculty.
5. Courses in a minor cannot be counted toward the English major or English Writing major.

Note: Students are advised to fulfill the liberal arts and sciences core curriculum writing requirements before enrolling in upper-division literature courses.

Take all of the following required courses:

- ENGL 2450 - Introduction to Literature
- ENGL 3001 - Critical Writing

Take any three upper-division courses from the English major, Literature Option area requirements:

Historical Survey

- ENGL 4080 - History of English Language
- ENGL 4166 - History of American Poetry
- ENGL 4200 - History of the English Novel I
- ENGL 4210 - History of the English Novel II
- ENGL 4230 - The American Novel
- ENGL 4236 - The American Short Story
- ENGL 4300 - History of British Drama
- ENGL 4320 - History of Poetry in English
- ENGL 4350 - History of American Drama

Old English, Medieval Language and Literature

- ENGL 4400 - Old English I
- ENGL 4500 - Medieval Literature
- ENGL 4510 - Whores and Saints: Medieval Women
- ENGL 4730 - Chaucer

Renaissance, Restoration and 18th Century British Literature

- ENGL 3661 - Shakespeare
- ENGL 4520 - English Renaissance
- ENGL 4530 - Milton
- ENGL 4540 - Restoration and the 18th Century

Eighteenth- and Nineteenth-Century British Literature

- ENGL 4200 - History of the English Novel I
- ENGL 4210 - History of the English Novel II
- ENGL 4560 - English Romanticism
- ENGL 4580 - The Victorian Age

American Literature

- ENGL 3700 - American Literature to the Civil War
- ENGL 3750 - American Literature after the Civil War
- ENGL 4166 - History of American Poetry
- ENGL 4230 - The American Novel
- ENGL 4236 - The American Short Story
- ENGL 4350 - History of American Drama

Modern and Contemporary Literature

- ENGL 3450 - Twentieth Century Women Writers
- ENGL 3480 - Modern Drama
- ENGL 4250 - Twentieth Century Fiction
- ENGL 4460 - Contemporary World Literature
- ENGL 4600 - Modernism


## Mathematics Minor

## Introduction

Please click here to see Mathematical and Statistical Sciences department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Minimum of 21 semester hours.
2. At least 6 of the upper-division MATH semester hours must be taken at CU Denver.
3. Students must receive a grade of C or better in order for the course to be counted toward the minor requirements.
Take all of the following Mathematics courses:

- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 2421-Calculus III

Take three approved upper-division MATH courses (three or more semester hours each, above 3000, excluding MATH 3040, 4012, 4013, 4014 and 4015).

## Nonprofit Management Minor

## Introduction

A minor in Nonprofit Management is expected to be popular with students from fields in which nonprofit organizations play a significant role such as psychology, public health, environmental studies, and ethnic studies. Through this minor, a student can focus on the fundamentals of nonprofit management, and also has the option to participate in extracurricular activities leading to the Certified Nonprofit Professional (CNP) designation through the Nonprofit Leadership Alliance. Contact Dr. Danielle Varda at Danielle.varda@ucdenver.edu for more information about earning the Certified Nonprofit Professional designation as part of the Nonprofit Management minor.

## Program Delivery

- This is an online program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minor in Nonprofit Management requires $\mathbf{1 5}$ credit hours of course work.
2. A maximum of $\mathbf{6}$ transfer credits may be applied to the minor.
3. Please note that the Certified Nonprofit Professional designation also requires completion of an internship and other extracurricular activities, along with the coursework listed below. Contact Danielle Varda at Danielle.varda@ucdenver.edu for more information on the certificate program.

Take the following required courses:

- PUAD 3003 - Introduction to Nonprofit Organizations
- PUAD 3004 - Managing Nonprofit Organizations

Choose three courses from the following list of Nonprofit electives:

- PUAD 3005 - Collaboration Across Sectors
- PUAD 4004 - Building Public and Financial Support for Nonprofit Organizations
- PUAD 4007 - Nonprofit Human Resources
- PUAD 4020 - Social Entrepreneurship


## Painting and Drawing Minor

## Introduction

Please click here to see general Visual Arts information.

The painting and drawing minor is for students interested in broadening their skills in the production of painterly and hand-drawn works of art. Undergraduates are introduced to a variety of techniques and ideas, are exposed to several historical and contemporary art practices, and experience studio practice and participate in art dialogue. This minor allows students to complement their major area of study with applied visual problem-solving strategies and techniques, as well as with an ability to enhance their interests through studio art practice and discourse.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- To declare this minor, please see College of Arts \& Media Advising and Student Services in Arts Building, 177. Consult the College of Arts \& Media at CAM@ucdenver.edu for more information.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students may transfer up to six semester hours of non-CU Denver courses toward a College of Arts \& Media minor. All other courses must be taken at CU Denver.
2. A minimum grade of $C(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C- (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
3. Students may use up to six semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to the major requirements.

Take all of the following Painting and Drawing Minor courses:

- FINE 1100 - Drawing I
- FINE 2200 - Painting I
- FINE 3200 - Intermediate Painting and Drawing
- FINE 4200 - Advanced Painting and Drawing I

Take two of the following Painting and Drawing Minor courses:

- FINE 2030 - Life Drawing
- FINE 3030 - The Media of Drawing
- FINE 3050 - Figure Painting
- FINE 3240 - Abstract Painting and Drawing
- FINE 3300 - Painting, Drawing and the Printed Image
- FINE 3995-Travel Study (Drawing in Italy)

Please contact the College of Arts \& Media at CAM@ ucdenver.edu for course sequencing, any prerequisite updates and for more information about this minor.

## Philosophy Minor

## Introduction

Please click here to see Philosophy department information.
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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A total of 15 semester hours is required for the minor in philosophy, with a minimum grade of $C(2.0)$ in each course.
Take all of the following required courses:

- PHIL 1012 - Introduction to Philosophy: Relationship of the Individual to the World
- PHIL 3002 - Ancient Greek Philosophy
- PHIL 3022 - Modern Philosophy
(It is recommended but not required that PHIL 3002 be taken before PHIL 3022.)

Take two additional philosophy courses, one of which must be at the upper-division level.
Religious Studies courses cannot be used to fulfill the requirements for the minor.

## Photography Minor

## Introduction

Please click here to see general Visual Arts information.
Students in the photography minor develop a broad range of technical and conceptual skills that expand their knowledge of image-making. The curriculum of the minor emphasizes photography as a tool for creative expression while integrating the history of photography and contemporary artistic practices. Through an exploration of both digital and analog processes, students select intermediate level courses that enable them to successfully employ a variety of photographic strategies.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Students who are applying for entrance into the photography minor must submit a portfolio, as described below. The photography minor accepts applications twice a year. Students who meet the requirements and are accepted will be eligible to register for select upper-division studio photography courses.


## ELIGIBILITY

University of Colorado Denver students and transfer students must have a minimum cumulative GPA of 2.75 in fine art and art history courses. In order to apply to the photography minor, students must have completed, or be in the process of completing, the following courses:

- FINE 1150 - Introduction to Darkroom Photography
- FINE 2155 - Introduction to Digital Photography


## PORTFOLIO APPLICATION REQUIREMENTS

Properly prepared application submissions must be uploaded to Slideroom.com by November 1 or April 1 at 5:00 pm (Mountain Time). Applications are only accepted online and must be formatted to the specifications listed here.

It is strongly recommended that students visit the submission website early and begin uploads two weeks before the due date. Late submissions due to technical difficulties on the part of the applicant will not be accepted.

Step 1: Register and create an account in Slideroom. Please go to the following website to complete this process: https://ucdvisualarts.slideroom.com. (Note that SlideRoom charges a $\$ 30.00$ fee to process portfolio submissions).

Step 2: When prompted answer all questions about the application.
Step 3: Upload documents, including the written statement and transcripts from the University of Colorado Denver and all previous post-secondary institutions.

Step 4: Upload 10 image files of creative work.

## Portfolio of Images

- The photography portfolio must include 10 image files of creative work. At least six portfolio images should be photographic, demonstrating the student's understanding of concept, form, composition and technique. The remaining four portfolio pieces may be photographic or they may be examples of design, drawing, painting, mixed media, sculpture, installation and/or printmaking.
- For each portfolio image, the student should write a brief description ( 150 words or less) that identifies the medium (silver gelatin print, ink jet print, charcoal drawing, etc.) and explains the student's approach to the project.
- Images must be submitted in jpeg format, 12 inches on the longer side, sized at 72 pixels per inch, and saved at the highest setting available (usually 10 or 12). Files should be named with the student's last name, then first name and image title using underscores to separate. Example: Doe_Jane_ImageTitle.jpg.


## Written Statement

Written statements should be limited to one page in length (400-500 words) and saved as a .pdf file. Statements should address the following questions:

- Why do you want to study photography?
- What are your creative strengths, and what areas need further development?
- Are there additional accomplishments that you would like the committee to know about (such as Dean's List, GPA, internships, art-related extracurricular activities or relevant professional experience)?


## Course Transcripts

These may be official or unofficial transcripts from CU Denver and previous post-secondary institutions. The CU Denver transcript must show any current semester courses.

## THE EVALUATION PROCESS

- A committee of photography faculty members reviews the portfolio submissions. Acceptance into the photography minor is based on the portfolio images, written statement and GPA.
- If not admitted into the photography minor, a student has the choice of attempting the review process again in a later semester or applying to another minor. Students not admitted into the photography minor are encouraged to schedule a meeting with the area head of photography to learn ways to improve their portfolios for future submissions.


## The application is evaluated on the following criteria:

- Technical Skill - The portfolio should demonstrate strong knowledge of the fundamental tools of photography including camera functions, analog film development, darkroom printing and digital imaging, as well as an understanding of design, form, composition and color.
- Creativity - The portfolio should demonstrate creative choices in content and aesthetics.
- Conceptual Skill - The portfolio and written statements should reflect analytical thinking and conceptual exploration of the photographic medium.
- Written Statement - The statement should outline academic and artistic goals, addressing any potential strengths and weaknesses.
- Academic Performance - The grades must reflect a commitment to learning and growth.
- Completeness of Application - All required documentation must be submitted (images, written statement and transcripts).


## QUESTIONS

For more portfolio information, please contact CAM@ucdenver.edu or photography area head Carol Golemboski at carol.golemboski@ucdenver.edu.

## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students may transfer up to six semester hours of non-CU Denver courses toward a College of Arts \& Media minor. All other courses must be taken at CU Denver.
2. A minimum grade of $C(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C - (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
3. Students may use up to six semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to the major requirements.
Take all of the following Photography Minor courses (entry level):

- FINE 1150 - Introduction to Darkroom Photography
- FINE 2155 - Introduction to Digital Photography
- FINE 3630 - History of Photography

Take three of the following Photography Minor courses (FINE 3160, 3161, 3171, and 3172 are available only to students accepted to the minor via portfolio review):

- FINE 3115 - Mixed Media and Photography
- FINE 3135 - Historic Photographic Processes in Italy
- FINE 3156 - Photography Studio and Lighting
- FINE 3160 - Color and the Constructed Image
- FINE 3161 - The Silver Fine Print
- FINE 3162 - The Digital Fine Print
- FINE 3171 - Concepts and Processes in Photography
- FINE 3172 - Photography and Community
- ARCH 3602 - Architecture Photography (available only to architecture majors)

Please contact the College of Arts \& Media at CAM@ ucdenver.edu for course sequencing, any prerequisite updates and for more information about this minor.

## Physics Minor

## Introduction

Please click here to see Physics department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A total of 16 semester hours is required for a minor in physics.
2. No grade below a $C(2.0)$ can be used to meet the requirements for the minor.
3. At least 6 semester hours of the requirements for the minor must be completed at CU Denver.

Take either one of the following sequences:

- PHYS 2010 - College Physics I
- PHYS 2020 - College Physics II
- PHYS 2030 - College Physics Lab I
- PHYS 2040 - College Physics Lab II
or
- PHYS 2311 - General Physics I: Calculus-Based
- PHYS 2321 - General Physics Lab I
- PHYS 2331 - General Physics II: Calculus-Based
- PHYS 2341-General Physics Lab II

Take six semester hours of electives; 3 at the 2000-level or above and 3 at the 3000 -level or above.

## Political Science Minor

## Introduction

Please click here to see Political Science department information.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is both an on-campus program and online program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. At least 9 of the 15 hours required for this minor must be taken from CU Denver faculty. Take one of the following courses:

- PSCI 1001 - Introduction to Political Science: The Quest for Freedom and Justice
- PSCI 1101 - American Political System

Take one of the following 4000-level American Politics courses:

- PSCI 4009 - Politics of the Budgetary Process
- PSCI 4014 - Media and Politics
- PSCI 4024 - State Politics: Focus Colorado
- 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 4124 - Denver Politics
- PSCI 4236 - American Foreign Policy
- PSCI 4237 - American National Security
- PSCI 4324 - Politics, Public Policy and Leadership
- PSCI 4330 - U.S. Health Policy
- PSCI 4354 - Environmental Politics
- PSCI 4374 - Public Priorities for the 21st Century
- PSCI 4444 - Contemporary Culture and Politics in America
- PSCI 4457 - American Political Thought
- PSCI 4477 - Constitutional Law I
- PSCI 4487 - Constitutional Law II
- PSCI 4494 - Judicial Politics
- PSCI 4545 - Immigration Politics
- PSCI 4554 - Chicano and Latino Politics
- PSCI 4564 - Gender and Politics
- PSCI 4644 - Ethical Responsibilities of Leaders
- PSCI 4827 - Women and the Law
- PSCI 4837 - Contemporary Issues in Civil Liberties

Take one of the following 4000-level Comparative Politics courses:

- PSCI 4057 - Religion and Politics
- PSCI 4074 - Urban Politics
- PSCI 4085 - Comparative Governance: Environment and Society
- PSCI 4105 - Comparative Politics: Europe
- PSCI 4115 - Third World Politics
- PSCI 4144 - Indigenous Political Systems
- PSCI 4146 - Indigenous Politics
- PSCI 4155 - Political Systems of the Middle East and North Africa
- 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 4195 - Political Systems of Sub-Saharan Africa
- PSCI 4206 - Social Movements, Democracy and Global Politics
- PSCI 4215 - Women's Rights, Human Rights: Global Perspectives
- PSCI 4224 - Dictatorships in 21st Century
- PSCI 4225 - Democracy and Democratization
- PSCI 4235 - Politics and Markets in Latin America
- PSCI 4248 - Gender, Globalization and Development
- PSCI 4265 - Social Justice And Globalization
- PSCI 4365 - Global Ecological Crises
- PSCI 4446 - Advanced Indigenous Peoples' Politics
- PSCI 4505 - Political System of Russia and Its Neighbors
- PSCI 4555 - International Women's Resistance
- PSCI 4605 - Politics and Governments of South Asia
- PSCI 4615 - Politics and Government of China
- PSCI 4807 - Political Violence
- PSCI 4808-Strategies of Peacebuilding

Take one of the following 4000-level International Politics courses:

- PSCI 4126 - Introduction to International Political Economy
- PSCI 4156 - The Arab-Israeli Peace Process
- PSCI 4186 - East Asia in World Affairs
- PSCI 4206 - Social Movements, Democracy and Global Politics
- PSCI 4216 - International Politics: Human Rights
- PSCI 4236 - American Foreign Policy
- PSCI 4237 - American National Security
- PSCI 4266 - International Law
- PSCI 4274 - Conflict Resolution and Public Consent Building
- PSCI 4286 - International Relations: War or Peace?
- PSCI 4326 - Advanced International Political Economy: Globalization
- PSCI 4726 - Seminar on U.S. and China Relations
- PSCI 4736 - The Middle East in World Affairs

Take one of the following 4000-level Political Theory courses:

- PSCI 4207 - Theories of Social and Political Change
- PSCI 4265 - Social Justice And Globalization
- PSCI 4407 - Early Political Thought
- PSCI 4417 - Modern Political Thought
- PSCI 4427 - Law, Politics and Justice
- PSCI 4437 - Coercion and the State
- PSCI 4457 - American Political Thought


## Psychology Minor

## Introduction

Please click here to see Psychology department information.
Further information about the department may be obtained from department advisors or by calling 303-556-8565.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus and online program.


## Declaring This Minor

- Please see your CLAS advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minor in psychology requires the completion of 15 semester hours with a grade of C - or better in each course and a 2.0 GPA in all Psychology Courses.
2. At least 6 upper division semester hours must be taken from CU Denver faculty.
3. Because the minor is optional, there are no substitutions allowed to these requirements.
4. Students may not double count courses that are already applying to a major in Psychology.

Take all of the following required courses:

- PSYC 1000 - Introduction to Psychology I
- PSYC 1005 - Introduction to Psychology II

Take one of the following courses:

- PSYC 3222 - Principles of Learning and Behavior
- PSYC 3144 - Human Cognition

Take one of the following courses:

- PSYC 3205 - Human Development I: Child Psychology
- PSYC 3305 - Abnormal Psychology
- PSYC 3415 - Experimental Social Psychology

Take one additional PSYC course as an elective (any PSYC course that is not listed above and that is not already counting toward another requirement may be used). Students should see their minor advisor regularly to make sure they are completing the correct coursework.

## Public Health Demography Minor

## Introduction

Please click here to see Health and Behavioral Sciences department information.

The undergraduate minor in Public Health Demography will introduce students to population-based approaches to health and wellbeing. Both demography and public health draw on theories and methods from across the social and behavioral sciences, to understand population level outcomes. Collectively, the courses in the minor will strengthen skills in analytical thinking, critical thinking, and quantitative reasoning, as related to topics including fertility, mortality, migration, maternal and child health, health disparities, and population health.

The minor in Public Health Demography will help to prepare students for graduate training in public health, demography, epidemiology, or biostatistics. Further, the minor will help to prepare students for jobs that require an understanding of population dynamics. Demographic skills are useful in fields including actuarial studies, marketing, consulting, non-profits, and various agencies in the local, state, and federal government.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. All students must complete a minimum of 17 credits drawn from the approved course list (see below).
2. Due to substantial overlap in coursework, students who complete the major in Public Health shall not also be awarded the minor in Public Health Demography.
3. Students must achieve a $C(2.0)$ or above in all the courses for them to be counted toward the minor.
4. At least 9 credit hours must be taken in residence at UCD and at least 6 credit hours must be taken in upper division courses.
Note: Students should check for prerequisites when enrolling in courses.

Take all of the following General Public Health courses:

- PBHL 2001 - Introduction To Public Health
- PBHL 3001 - Introduction to Epidemiology

Take all of the following Core Demography courses:

- PBHL 2052 - Global Demography and Health
- SOCY 4220 - Population Change and Analysis

Take one of the following electives with Demographic and Statistical themes:

- PBHL 3070 - Perspectives in Global Health
- PBHL 4040 - Social Determinants of Health
- MATH 2830 - Introductory Statistics
- SOCY 3121 - Statistics


## Public Health Minor

## Introduction

Please click here to see Health and Behavioral Sciences department information.
The undergraduate minor in Public Health is designed to provide students with a basic understanding of the social, cultural, and biological dimensions of health. The minor curriculum provides students with the intellectual and methodological tools needed to understand the joint bio-cultural determinants and contexts of health, health care and public health. Graduates with a minor in Public Health will be prepared for pursuit of graduate degrees in a broad range of fields, including the natural, social and behavioral sciences, public health, law, medicine, dentistry, pharmacy, nursing, business administration, and health services research. The program is especially appropriate for students intending to pursue careers in public health, as well as primary care specialties in medicine, nursing, or health policy and administration.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minimum of 24 semester hours are required, of which 12 must be upper-division and taken from CU Denver faculty.
2. Students must achieve no less than a C (2.0) in each course applied toward minor requirements.
3. Up to 6 credit hours completed toward a major or minor in another department may be counted toward the minor in public health.
Take both of the following required courses:

- PBHL 2001 - Introduction To Public Health
- PBHL 3001 - Introduction to Epidemiology

Take at least two of the following courses. All four may be taken in lieu of two of the elective courses listed below.

- PBHL 2020 - Introduction to Environmental Health
- PBHL 2052 - Global Demography and Health
- PBHL 3030 - Health Policy
- PBHL 3070 - Perspectives in Global Health
- PBHL 4040 - Social Determinants of Health

Take one of the following courses:

- ANTH 1303 - Introduction to Biological Anthropology
- BIOL 1550 - Basic Biology: Ecology and the Diversity of Life
- BIOL 1560 - Basic Biology: From Cells to Organisms

Take two of the following elective courses:

- PBHL 3021 - Fundamentals of Health Promotion
- PBHL 3031 - Health, Human Biology and Behavior
- PBHL 3041 - Health, Culture and Society
- PBHL 3071 - Global Topics In Sexual and Reproductive Health
- PBHL 4080 - Global Health Practice
- PBHL 4200 - The Global HIV/AIDS Epidemic
- ANTH 4090 - Drug Syndemic
- ANTH 4260 - Human Reproductive Ecology
- COMM 4500 - Health Communication
- COMM 4620 - Health Risk Communication
- GEOG 4235 - GIS Applications in the Health Sciences
- PSYC 3235 - Human Sexuality
- PSYC 3262 - Health Psychology
- SOCY 3520 - Topics in Sociology (when Medical Sociology is the topic)


## Public Service Minor

## Introduction

A minor in Public Service, offered by the School of Public Affairs, will provide needed competencies to a generation looking for meaningful work consistent with their social values. Public Service courses provide students with the skills and content knowledge to work in public, private, and nonprofit sectors and the emerging fourth sector that blends social and environmental concerns with business approaches. This minor is particularly useful for students majoring in substantive areas (such as environmental studies, education and human development, and criminal justice) who plan on applying their expertise in public service organizations such as governmental agencies or nonprofit organizations.

## Program Delivery

- This is an online program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. A minor in Public Service requires $\mathbf{1 5}$ credit hours of course work.
2. A maximum of $\mathbf{6}$ transfer credits may be applied to the minor. Take the following required course:

- PUAD 1001 - Introduction to Leadership and Public Service


## Electives

Take a total of $\mathbf{1 2}$ credit hours of electives, $\mathbf{6}$ of which must be Public Service core required courses offered by the School of Public Affairs, and $\mathbf{6}$ of which must be upper-division public service electives offered by the School of Public Affairs.

## Religious Studies Minor

## Introduction

Please click here to see Religious Studies department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor, or the Program Director, Sharon Coggan.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Eighteen semester hours, at least 9 of which must be upper division and at least 9 semester hours taken with CU Denver faculty.
2. A minimum cumulative GPA of 2.0 for all CU Denver courses taken in the minor is required, with no individual course grade lower than a $C(2.0)$.
3. A maximum of 9 credits hours of independent study courses may be applied to the minor.
4. A maximum of 6 hours of pass/fail courses may be applied to the minor.

## Required Course

Take the following required course:

- RLST 1610 - Introduction to Religious Studies


## Western Religion

Take one course from the following approved list:

- RLST 2660 - World Religions *
- RLST 2700 - The Bible as Literature or
- ENGL 2520 - The Bible as Literature
- RLST 3000 - Judaism, Christianity and Islam: Affinity and Difference
- RLST 3060 - History of Early Christianity
- RLST 3120 - Islamic Traditions
- RLST 3740 - Biblical Traditions: Old Testament
- RLST 3760-Biblical Studies: New Testament
- RLST 3770 - Archaeological Discoveries Relating to the Bible
- RLST 4070 - Western Religious Thought or
- PHIL 4710 - Western Religious Thought
- RLST 4400 - Differing Concepts of God or *
- PHIL 4650 - Differing Concepts of God *
- RLST 4440 - Concepts of the Soul * or
- PHIL 4470 - Concepts of the Soul *
- RLST 4460 - Death and Concepts of Afterlife *
- RLST 4462 - Islam in Modern History
* Fulfills requirement for either Eastern or Western religion, but not both simultaneously


## Eastern Religion

Take one course from the following approved list:

- RLST 2660 - World Religions *
- RLST 3400 - Asian Philosophies and Religions or
- PHIL 3666 - Asian Philosophies and Religions
- RLST 3500 - Religions of India
- RLST 3660 - Chinese Philosophy and Culture or
- PHIL 3981 - Chinese Philosophy and Culture
- RLST 4080 - Eastern Religious Thought or
- PHIL 4720 - Eastern Religious Thought
- RLST 4160 - Mysticism
- RLST 4400 - Differing Concepts of God or *
- PHIL 4650 - Differing Concepts of God *
- RLST 4440 - Concepts of the Soul or *
- PHIL 4470 - Concepts of the Soul *
- RLST 4460 - Death and Concepts of Afterlife *
* Fulfills requirement for either Eastern or Western religion, but not both simultaneously


## Elective courses

Take three courses from the following list. Other courses, such as certain special topics, art history courses featuring religious themes and others may count toward the minor at the discretion of the course instructor and the director.

- RLST 1010-Greek I: Biblical or
- GREK 1010 - Greek I: Biblical
- RLST 2660 - World Religions
- RLST 2680 - The American Indian Experience or
- ETST 2606 - The American Indian Experience
- RLST 2700 - The Bible as Literature or
- ENGL 2520 - The Bible as Literature
- RLST 3000 - Judaism, Christianity and Islam: Affinity and Difference
- RLST 3060 - History of Early Christianity
- RLST 3100 - Islamic Politics and Culture or
- PSCI 4165 - Islamic Politics and Culture
- RLST 3120 - Islamic Traditions
- RLST 3300-Shamanic Traditions or
- ETST 3300-Shamanic Traditions
- RLST 3400 - Asian Philosophies and Religions or
- PHIL 3666 - Asian Philosophies and Religions
- RLST 3486 - Renaissance and Reformation or
- HIST 3486 - Renaissance and Reformation
- RLST 3500 - Religions of India
- RLST 3660 - Chinese Philosophy and Culture or
- PHIL 3981 - Chinese Philosophy and Culture
- RLST 3720 - Religious Narratives or
- ENGL 3520 - Religious Narratives
- RLST 3740 - Biblical Traditions: Old Testament
- RLST 3760 - Biblical Studies: New Testament
- RLST 3770 - Archaeological Discoveries Relating to the Bible
- RLST 4000 - Religion and Cultural Diversity
- RLST 4010 - Comparative Religious Systems
- RLST 4020 - Sociology of Religion or
- SOCY 4610 - Sociology of Religion
- RLST 4040 - Psychology of Religion
- RLST 4060 - Philosophy of Religion or
- PHIL 4600 - Philosophy of Religion
- RLST 4070 - Western Religious Thought or
- PHIL 4710 - Western Religious Thought
- RLST 4080 - Eastern Religious Thought or
- PHIL 4720 - Eastern Religious Thought
- RLST 4100-Special Topics in Religion
- RLST 4160 - Mysticism
- RLST 4300 - Myth and Symbol
- RLST 4320 - Spirituality in the Modern World
- RLST 4340 - The Hero's Journey
- RLST 4360 - Freudian and Jungian Perspectives in Dream Analysis
- RLST 4400 - Differing Concepts of God or
- PHIL 4650 - Differing Concepts of God
- RLST 4420 - Goddess Traditions or
- WGST 4420 - Goddess Traditions
- RLST 4440 - Concepts of the Soul or
- PHIL 4470 - Concepts of the Soul
- RLST 4460 - Death and Concepts of Afterlife
- RLST 4462 - Islam in Modern History or
- HIST 4462 - Islam in Modern History
- RLST 4480 - Perspectives on Good and Evil or
- PHIL 4480 - Perspectives on Good and Evil
- RLST 4500 - Religion and Politics or
- PSCI 4057 - Religion and Politics
- RLST 4710 - Women and Religion or
- WGST 4710 - Women and Religion
- RLST 4730 - Whores and Saints: Medieval Women or
- ENGL 4510 - Whores and Saints: Medieval Women or
- WGST 4510 - Whores and Saints: Medieval Women
- RLST 4840 - Independent Study: RLST
- RLST 4880 - Directed Research


## Risk Management and Insurance Minor

## Introduction

Please click here to see Business School information.
Students in other undergraduate schools and colleges at CU Denver wishing to complete the Risk Management and Insurance minor need to complete the course work described below.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- To declare the RMI minor, students must have a 3.0 GPA, either cumulative or from their last 24 completed semester hours.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must maintain or exceed a 2.0 GPA to graduate with the minor.
2. Up to 6 of the 18 semester hours required for the minor may be completed at another institution.
3. Students must have declared the Risk Management and Insurance minor to register for any of the courses or petition separately to take each of these courses.
Take all of the following required prerequisite and proficiency courses:

- ISMG 2050 - Introduction to Business Problem Solving
- MATH 1070 - College Algebra for Business or
- MATH 1110 - College Algebra
- BANA 2010 - Business Statistics
- ECON 2012 - Principles of Economics: Macroeconomics
- ECON 2022 - Principles of Economics: Microeconomics
- ACCT 2200 - Financial Accounting and Financial Statement Analysis

Take all of the following required courses:

- FNCE 3000 - Principles of Finance
- FNCE 3500 - Management of Business Capital
- RISK 3809 - Introduction to Risk Management
- RISK 4809 - Property \& Casualty Insurance

Take two of the following courses:

- FNCE 3700 - Investment and Portfolio Management
- RISK 4909 - Corporate Risk Management
- RISK 4129 - Practical Enterprise Risk Management
- RISK 4409 - Employee Benefits and Workforce Risk Management
- RISK 4509-Global Risk Management
- RISK 4709 - Life \& Health Insurance
- RISK 4950 - Special Topics: Cyber Risk Management \& Cyber Warfare


## Notes

1. Some of the prerequisite courses may be substituted on a case by case basis. Please see an advisor for details.
2. All RISK courses have a fixed tuition rate. However, students have the option to apply for RMI scholarships for each RISK course they take.

## Social Justice Minor

## Introduction

Please click here to see Social Justice department information.
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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. The minor consists of 18 semester hours.
2. Coursework includes a required introductory class "Foundations In Social Justice".
3. The minor includes an experiential learning component of 3 semester hours.
4. 9-semester-hours (3 courses) of approved Social Justice Upper Division Electives are required At least two disciplines must be represented.
5. A 3-semester-hour capstone seminar that will provide opportunity for further reflection on the experiential learning projects and student group projects is required. Take the following required course:

- SJUS 2000 - Democratic Participation and Social Justice

Take three courses from those listed below. This is a sample list of upperdivision courses, but other courses may be considered.
Anthropology

- ANTH 3000 - Globalization, Migration and Transnationalism
- ANTH 3142 - Cultural Diversity in the Modern World
- ANTH 3200 - Human Migration: Nomads, Sojourners, and Settlers
- ANTH 4070/ ANTH 5070-Culture of Development and Globalization
- ANTH 4300/ ANTH 5300 - Migrant Health

Communication

- COMM 2020-Communication, Citizenship, and Social Justice
- COMM 2082 - Introduction to Environmental Communication
- COMM 3271 - Communication and Diversity
- COMM 4040 - Communication, Prisons, and Social Justice
- COMM 4022 - Critical Analysis of Communication
- COMM 4260 - Communication and Conflict
- COMM 4265 - Gender and Communication
- COMM 4282 - Environmental Communication
- COMM 4558 - Digital Health Narratives
- COMM 4610 - Communication, media, and sexuality
- COMM 4710- Topics in Communication

Education

- EDFN 4001/ EDFN 5001 - Problematizing Whiteness: Educating for Racial Justice

English

- ENGL 3330 - Topics in Literature (Literature, Mysteries and Spies)
- ENGL 4190/ ENGL 5190 - Special Topics (Rhetorics of the Body)
- ENGL 4190/ ENGL 5190 - Special Topics (Rhetoric of Disability in Contemporary Film)
- ENGL 4280/ ENGL 5280 - Proposal and Grant Writing
- ENGL 4308-Contemporary Feminist Thought
- ENGL 4770 - Topics in English: Film and Literature (Literature \& Mental Difference)
- ETST 3002 - Ethnicity, Health and Social Justice
- ETST 3272 - Global Media
- ETST 3274 - Power, Poverty, Culture
- ETST 3110 - Indigenous Studies
- ETST 3396 - History of the American Indian
- ETST 3704 - Culture, Racism and Alienation
- ETST 3794 - Ethnicity and Race in Contemporary American Culture

Geography \& Environmental Sciences

- GEOG 3301 - Population, Culture, and Resources
- GEOG 3401 - Geography of Food and Agriculture
- GEOG 3411 - Globalization and Regional Development
- GEOG 3501 - Geography of Health
- GEOG 4230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 4420 - The Politics of Nature
- GEOG 4640/ GEOG 5640 - Urban Geography: Denver and the U.S.
- GEOG 4680 - Urban Sustainability: Perspectives and Practice

History

- HIST 3235 - U.S. Labor History, 1800 to the Present
- HIST 3343 - Women in U.S. History
- HIST 3345 - Immigration and Ethnicity in American History
- HIST 3349 - Social Movements in 20th Century America
- HIST 4217/ HIST 5217 - Consumer Culture
- HIST 4306/ HIST 5306 - Survey of Feminist Thought
- HIST 4308/ HIST 5308 - Crime, Policing, and Justice in American History
- HIST 4455/ HIST 5455 - African Struggle for Independence

Landscape Architecture

- LDAR 4486/ LDAR 6686 - Special Topics: Landscape Architecture (Site, Society \& Environment)
- LDAR 4486/ LDAR 6686 - Special Topics: Landscape Architecture (Food in the Urban Landscape)

Philosophy

- PHIL 3200-Social and Political Philosophy
- PHIL 3280 - War and Morality
- PHIL 3500 - Ideology and Culture: Racism and Sexism
- PHIL 3550 - Philosophy of Death and Dying
- PHIL 4101/ PHIL 5101 - Pragmatism: Classical American Philosophy
- PHIL 4812/ PHIL 5812 - Special Topics in Philosophy (Prisons, Punishment, and Social Justice)
- PHIL 4812/ PHIL 5812 - Special Topics in Philosophy (Gender and Sexuality)
- PHIL 4812/ PHIL 4812 - Special Topics in Philosophy (The Woman Question)
- PHIL 4920/ PHIL 5920 - Philosophy of Media and Technology

Political Science

- PSCI 3034 - Race, Gender, Law and Public Policy
- PSCI 3035 - Political Movements: Race and Gender
- PSCI 3075 - Community Organizing and Community Development
- PSCI 3914 - The Urban Citizen
- PSCI 4002 - Topics in Political Science
- PSCI 4025/ PSCI 5025 - Local Governance and Globalization
- PSCI 4144 - Indigenous Political Systems
- PSCI 4146 - Indigenous Politics
- PSCI 4207 - Theories of Social and Political Change
- PSCI 4265/ PSCI 5265 - Social Justice And Globalization
- PSCI 4437 - Coercion and the State
- PSCI 4535 - Labor and Working Class Politics
- PSCI 4545 - Immigration Politics
- PSCI 4555 - International Women's Resistance

Religious Studies

- RLST 4000 - Religion and Cultural Diversity

Sociology

- SOCY 3001 - Urban Sociology
- SOCY 3020 - Race and Ethnicity in the U.S.
- SOCY 3140 - Sociological Theory
- SOCY 3720 - Global Perspectives on Social Issues
- SOCY 4700 - Sociology of Law
- SOCY 4773 - Advanced Topics in Sociology

Social Justice

- SJUS 4050/ SJUS 5050-Special Topics: Social Justice

Social Sciences

- SSCI 4050/ SSCI 5050-Topics in Social Science (1st Amendment in American Culture Wars)
- SSCI 4050/ SSCI 5050 - Topics in Social Science (Critical Public Humanities)
- SSCI 4050/ SSCI 5050 - Topics in Social Science (Narratives of Americas)

Women's and Gender Studies

- WGST 4306/ WGST 5306 - Survey of Feminist Thought
- WGST 4308/ WGST 5308 - Contemporary Feminist Thought

Take a $\mathbf{3}$ semester hour capstone seminar

## Sociology Minor

## Introduction

Please click here to see Sociology department information.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly
urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This program is offered on-campus and online.


## Declaring This Minor

- Please consult with College of Liberal Arts and Sciences (CLAS) Advising.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. For an undergraduate minor in sociology, a minimum of 15 semester hours in sociology must be completed with a grade of C or better in each individual course.
2. Nine of these hours must be taken from CU Denver faculty.
3. A minimum of 6 semester hours of upper division coursework are required.
4. Students may count up to 9 semester credits of independent study or internship coursework toward the Sociology minor.
Take the following required course:

- SOCY 1001 - Introduction to Sociology

Take one of the following courses:

- SOCY 2001 - Inequalities in Social World
- SOCY 3115 - Quantitative Methods \& Analysis
- SOCY 3119 - Qualitative Methods
- SOCY 3140 - Sociological Theory

Take nine credit hours of additional Sociology electives at any level.

## Spanish Minor

## Introduction

Please click here to see information about the Department of Modern Languages.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students minoring in Spanish for the BA degree must complete 15 semester hours of upper-division Spanish courses (courses numbered 3000 and higher).
2. All course work must be taught in Spanish.
3. A grade of C - or higher is required for all coursework counted towards the minor.
4. Students must take at least 9 credit hours for the minor from CU Denver faculty.
5. Students may count up to 3 credit hours of Independent Study or Internship courses toward the minor.
6. Students must delcare this minor prior to their final semester of coursework. Take one of the following courses:

- 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 3270 - Bilingual Communities: Spanish as a Language of Contact
- SPAN 4330 - Modern Culture of Spain through Film and Narrative

Take four additional upper-division Spanish courses.

## Studio Art Minor

## Introduction

Please click here to see general Visual Arts information.
This general minor in studio art offers students the opportunity to explore creative studio practice in one or multiple areas (e.g., photography, transmedia sculpture, painting and drawing) along with an introduction to art history.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- To declare this minor, please see College of Arts \& Media Advising and Student Services in Arts Building, 177. Consult the College of Arts \& Media at CAM@ucdenver.edu for more information.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students may transfer up to six semester hours of non-CU Denver courses toward a College of Arts \& Media minor. All other courses must be taken at CU Denver.
2. A minimum grade of $C(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C - (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
3. Students may use up to six semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to the major requirements.
Take two of the following Studio Art Minor courses:

- FINE 1100 - Drawing I
- FINE 1150 - Introduction to Darkroom Photography
- FINE 1400 - Two Dimensional Design
- FINE 1500 - Three-Dimensional Design
- FINE 2155 - Introduction to Digital Photography
- FINE 2200 - Painting I
- FINE 3500 - Installation Art

Take six semester hours of Studio Arts electives.

Take three semester hours of upper-division Studio Arts elective.

Take three semester hours of Art History elective.
Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, prerequisite updates and for lists of approved electives and more information about this minor.

## Sustainability Minor

## Introduction

Please click here to see Sustainability department information.
The sustainability minor is interdisciplinary, drawing on the expertise across CLAS departments: anthropology, biology, chemistry, communication, economics, environmental sciences, geography, geology, history, economics, philosophy, physics and political science. The core courses are taught by a faculty team who will present sustainability concepts from socio-ecological and systems perspectives.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students should consult with the Sustainability advisor before registering for any courses applicable toward the minor. *Graduate-level courses and cross-lists may be used with prior consent from the advisor.
2. The minor comprises 18 hours, distributed as follows: three core courses that introduce students to how living things affect and are affected by their environments, including a capstone course. Three electives chosen from an approved list of CLAS courses.
3. Twelve hours of course work for the minor must be upper division (3000 level or above) approved for the Sustainability Minor.
4. Students must complete a minimum of nine (9) credits in residence.
5. A minimum GPA of 2.5 is required in all courses counted for the Minor.
6. Credits counted for another major or minor program can be counted toward the Sustainability Minor. Take all of the following Core courses:

- ENVS 1342 - Environment, Society and Sustainability
- SUST 3010 - The Non-Sustainable Past
- SUST 4960 - Capstone in Sustainability

Take three from the following list of pre-approved elective courses:
Anthropology

- ANTH 1302 - Introduction to Archaeology
- ANTH 1303 - Introduction to Biological Anthropology
- ANTH 2102 - Culture and the Human Experience
- ANTH 3006 - Sustainable Development and Equity
- ANTH 3301 - World Prehistory
- ANTH 3512 - Human Evolution
- ANTH 4030 - Ethnobiology
- ANTH 4060 - Evolutionary Medicine
- ANTH 4070-Culture of Development and Globalization
- ANTH 4170 - Culture and the Environment
- ANTH 4450 - Development and Conservation: Contemporary Issues
- ANTH 4460 - Development and Conservation: Theory and Practice
- ANTH 4560 - Human Ecology

Biology

- BIOL 1550 - Basic Biology: Ecology and the Diversity of Life
- BIOL 3330 - Plant Diversity
- BIOL 3411 - Principles of Ecology
- BIOL 3521 - Vertebrate Biology
- BIOL 4154 - Conservation Biology

Business

- MGMT 4950 - Special Topics in Management (when offered as Business and Sustainability)
- MKTG 4950 - Special Topics (when offered as Nonprofit and Social Marketing)

Chemistry

- CHEM 1474 - Core Chemistry: Chemistry for Everyday
- CHEM 4700 - Environmental Chemistry

Economics

- ECON 4530 - Economics of Natural Resources
- ECON 4540 - Environmental Economics
- ECON 4770 - Economic Development--Theory and Problems

Geography/Geology/Environmental Sciences

- ENVS 1042 - Introduction to Environmental Sciences
- ENVS 3082 - Energy and the Environment
- GEOG 1202 - Introduction to Physical Geography
- GEOG 3302 - Water Resources
- GEOG 3411 - Globalization and Regional Development
- GEOG 4010 - Landscape Geochemistry
- GEOG 4020 - Earth Environments and Human Impacts
- GEOG 4090 - Environmental Modeling with Geographic Information Systems
- GEOG 4230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 4265 - Sustainability in Resources Management
- GEOG 4335 - Contemporary Environmental Issues
- GEOG 4350 - Environment and Society in the American Past
- GEOG 4640 - Urban Geography: Denver and the U.S.
- GEOL 4030 - Environmental Geology

History

- HIST 3350 - Colonial Latin America
- HIST 3360 - Denver History
- HIST 3366 - Nature and Power in American History
- HIST 3451 - Introduction to African History
- HIST 3460 - Modern Latin American History
- HIST 3470 - Intro to East Asia: Since 1800
- HIST 3606 - Science, Technology, and Society in the Modern World
- HIST 4217 - Consumer Culture
- HIST 4226 - Capitalism in America
- HIST 4227 - American West
- HIST 4236 - Colorado Mining and Railroads
- HIST 4240 - National Parks History
- HIST 4411 - Modern Mexico
- HIST 4417 - Commodities and Globalization
- HIST 4421 - Modern China
- HIST 4431 - Modern Japan
- HIST 4451 - Southern Africa
- HIST 4461 - The Modern Middle East
- HIST 4501 - World History for Educators
- HIST 4503 - Topics in History of Science
- HIST 4504 - Animals in U.S. History

Physics

- PHYS 3082 - Energy and the Environment
- PHYS 4400-4499 - Topics in Scientific Instrumentation and Laboratory
- PHYS 4850 - Physics for Design and Innovation I
- PHYS 4852 - Physics for Design and Innovation II
*Note: PHYS 4850 is a prerequisite for PHYS 4852

Philosophy

- PHIL 4250 - Environmental Ethics

Political Science

- PSCI 4354 - Environmental Politics
- PSCI 4146 - Indigenous Politics
- PSCI 4365 - Global Ecological Crises
- PSCI 5217 - Human Rights in Theory and Practice
- PSCI 5276 - Conflicts and Rights in International Law
- PSCI 5468 - Research Methods in Political Science

Public Health

- PBHL 2020 - Introduction to Environmental Health
- PSCI 3034 - Race, Gender, Law and Public Policy
- PSCI 3035 - Political Movements: Race and Gender
- PSCI 3042 - Introduction to International Relations
- PSCI 3914 - The Urban Citizen
- PSCI 4009 - Politics of the Budgetary Process
- PSCI 4014 - Media and Politics
- PSCI 4025 - Local Governance and Globalization
- PSCI 4085 - Comparative Governance: Environment and Society
- PSCI 4144 - Indigenous Political Systems
- PSCI 4206 - Social Movements, Democracy and Global Politics
- PSCI 4207 - Theories of Social and Political Change
- PSCI 4215 - Women's Rights, Human Rights: Global Perspectives
- PSCI 4226 - The United Nations in World Affairs
- PSCI 4248 - Gender, Globalization and Development
- PSCI 4324 - Politics, Public Policy and Leadership
- PSCI 4326 - Advanced International Political Economy: Globalization
- PSCI 4374 - Public Priorities for the 21st Century
- PSCI 4545 - Immigration Politics
- PSCI 4555 - International Women's Resistance
- PSCI 4645 - Comparative Political Leadership


## Theatre, Film and Television Minor

## Introduction

Please click here to see general Theatre, Film \& Video Production information.
In this minor students explore theatre, film and television in both studio and lecture formats.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- To declare this minor, please see College of Arts \& Media Advising and Student Services in Arts Building, 177. Consult the College of Arts \& Media at CAM@ucdenver.edu for more information.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students may transfer up to six semester hours of non-CU Denver courses toward a minor. All other courses must be taken at CU Denver.
2. A minimum grade of $\mathrm{C}(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C- (1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
3. Students may use up to six semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to the major requirements.
Take all of the following Theatre, Film and Television Minor courses:

- FITV 1200 - Fundamentals of Television
- THTR 1001 - Introduction to Theatre \& Arts in the Community

Take two of the following Theatre, Film and Television Minor courses, chosen in consultation with a Theatre, Film \& Video Production faculty advisor:

- FITV 3200 - Film History 1
- FITV 3300 - Film History 2
- THTR 3610 - Performance: Theory/History/Criticism I
- THTR 3620 - Performance: Theory/History/Criticism II

Take twelve semester hours of Theatre, Film and Television Minor electives, chosen in consultation with a Theatre, Film \& Video Production faculty advisor.

Please contact the College of Arts \& Media at CAM@ucdenver.edu for course sequencing, any prerequisite updates and for more information about this minor.

## Transmedia Sculpture Minor

## Introduction

Please click here to see general Visual Arts information.
The transmedia sculpture minor provides experiences that span digital practice, traditional metal casting, mold making, wood work and fabrication processes. Students learn how to use a wide variety of equipment that encompass the breadth of sculpture today, from metal, wood and assembled sculpture, to installation and performance work, to live media and interactive digital work.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- To declare this minor, please see College of Arts \& Media Advising and Student Services in Arts Building, 177. Consult the College of Arts \& Media at CAM@ucdenver.edu for more information.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students may transfer up to six semester hours of non-CU Denver courses toward a College of Arts \& Media minor. All other courses must be taken at CU Denver.
2. A minimum grade of $C(2.0)$ is required for each course applied toward a College of Arts \& Media major, minor or certificate requirement. A grade of C-(1.7) or lower will not fulfill a major, minor or certificate requirement. A grade of P is acceptable for courses in which the only grade available is Pass or Fail.
3. Students may use up to six semester hours to fulfill both major and minor requirements; the remaining semester hours for the minor must be taken in addition to the major requirements.
Take all of the following Transmedia Sculpture Minor courses:

- FINE 1500 - Three-Dimensional Design
- FINE 2500 - Bronze Casting
- FINE 2510 - Wood and Metal Sculpture

Take three of the following Transmedia Sculpture Minor courses:

- FINE 3500 - Installation Art
- FINE 3510 - Mold Design \& Casting
- FINE 4500 - Electronic Performance
- FINE 4510 - Advanced Sculpture

Take three semester hours of Art History elective.

Please contact the College of Arts \& Media at CAM@ ucdenver.edu for course sequencing, any prerequisite updates and for more information about this minor.

## Urban and Regional Planning Minor

## Introduction

Please click here to see Geography and Environmental Sciences Department information.
The urban and regional planning minor in the Department of Geography and Environmental Sciences provides nongeography undergraduate students the opportunity to pursue studies in the professional field of planning. Geography majors can pursue the urban studies option, so this minor would not be available to these majors.

Geography and urban and regional planning share a common concern for the spatial configuration of the places that we inhabit and enjoy. In recognition of this close association, there is currently an articulation agreement between the Department of Geography and Environmental Sciences and the College of Architecture and Planning that provides students with a mechanism for acceleration through the Master of Urban and Regional Planning (MURP) degree program, if accepted into that graduate program. Those students completing the requirements for an undergraduate planning minor may also be eligible to pursue an accelerated MURP degree and if interested in this option should work closely with the minor advisor in the selection of coursework. (Please see the Graduate Catalog for more information on this graduate program.)

All core courses are offered on a yearly basis.
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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students must complete three core requirements and two electives, totaling 15 semester hours.
2. 12 semester hours of upper-division courses are required.
3. Although the three core courses may be taken in any order, it is advisable to begin with GEOG 1602, since this course familiarize students with many key concepts used in other classes.
4. All undergraduate students, except geography majors, are eligible for this minor.
5. Students must achieve a grade of $C(2.0)$ or higher in required courses (this is a $B(3.0)$ if interested in applying for the articulated MURP degree program).
6. All upper-division courses must be completed at CU Denver and a minimum of 9 semester hours must be completed in CLAS (geography) to satisfy residency requirements.
Take all of the following required courses:

- GEOG 1602 - Urban Studies and Planning
- GEOG 4640 - Urban Geography: Denver and the U.S.
- GEOG 4680 - Urban Sustainability: Perspectives and Practice

Take two of the following courses:

- GEOG 4000/ URPL 5010 - Planning Methods
- GEOG 4085 - GIS Applications for the Urban Environment
- GEOG 4230 - Hazard Mitigation and Vulnerability Assessment
- GEOG 4235 - GIS Applications in the Health Sciences
- GEOG 4400 - Regional Economic Systems
- GEOG 4450 - Urban Food and Agriculture: Perspectives and Research
- GEOG 4630/ URPL 6550 - Transportation Planning/Policy
- URPL 5000 - Planning History and Theory
- URPL 5050 - Urban Development
- URPL 6300-Community and Environmental Health Planning
- URPL 6555 - Transportation, Land Use, and the Environment
- URPL 6650 - Planning in the Dev. World


## Women's and Gender Studies Minor

## Introduction

Please click here to see Women's and Gender Studies department information.
The Women's and Gender Studies Minor gives students the opportunity to explore gender issues in the humanities and social sciences.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

For more information about this minor, contact the Women's and Gender Studies Director, Gillian Silverman, 303-556-4529.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Completion of 18 semester hours in WGST courses with a grade of C or better.
2. At least 12 semester hours must be taken with CU Denver faculty.
3. All courses for the minor must be approved by a WGST advisor.
4. Students are strongly urged to take at least one course that focuses on women's and gender issues in international perspective.
5. Students have the option to complete an internship working in the community around issues related to women and gender. The alternative to this is a WGST capstone course at the 4000 level.
Take all of the following required courses ( 6 credits):

- WGST 1050 - Introduction to Women's and Gender Studies
- WGST 3939 - Internship ( 3 credit hours) or
- WGST course at the 4000 level

Take 12 credits of WGST-related courses at the 3000-level or above. Eligible courses include, but are not limited to:

Humanities

- WGST 3020 - Gender, Sexuality and Race in American Popular Culture
- ENGL/ WGST 3450-Twentieth Century Women Writers
- ENGL/ WGST 4510 - Whores and Saints: Medieval Women
- FREN 4510/ WGST 4511 - French Women Writers
- HIST/ WGST 3343 - Women in U.S. History
- HIST/ HIST/ WGST 4230 - Women in the West
- HIST/ WGST 4303 - Sex and Gender in Modern Britain
- HIST/ WGST 4307 - History of Sexuality
- HIST/ WGST 4345 - Gender, Science, and Medicine: 1600 to the Present
- PHIL 3500 - Ideology and Culture: Racism and Sexism
- PHIL/ WGST 4500 - Feminist Philosophy
- PHIL/ WGST 4933 - Philosophy of Eros
- RLST/ WGST 4420 - Goddess Traditions
- RLST/ WGST 4710 - Women and Religion
- SPAN 4340/ WGST 4540 - Race, Class, and Gender in Spanish Golden Age Literature
- WGST/ENGL/ HIST 4306 - Survey of Feminist Thought
- WGST/ENGL/ PHIL 4308-Contemporary Feminist Thought

Social Sciences

- ANTH 4200 - Gender in Cross-Cultural Perspective
- ANTH 4260 - Human Reproductive Ecology
- COMM 3275 - Family Communication
- COMM 4020 - Feminist Perspectives on Communication
- COMM 4265 - Gender and Communication
- COMM 4268 - Communication and Diversity in U.S. History
- COMM/ WGST 4610-Communication, media, and sexuality
- ECON 3100 - Economics of Race and Gender
- ECON 3400 - Economics of Sex and Drugs
- PSCI 3034 - Race, Gender, Law and Public Policy
- PSCI 3035 - Political Movements: Race and Gender
- PSCI/ WGST 4215 - Women's Rights, Human Rights: Global Perspectives
- PSCI/ WGST 4248 - Gender, Globalization and Development
- PSCI/ WGST 4555 - International Women's Resistance
- PSCI/ WGST 4564-Gender and Politics
- PSCI/ WGST 4827 - Women and the Law
- PSYC 3235 - Human Sexuality
- PSYC 3405 - Family Psychology
- PSYC 3611 - Psychology of Women
- PSYC 3612 - Domestic Abuse
- SOCY/ WGST 3010-Sociology of Human Sexuality
- SOCY/ WGST 3080-Sex and Gender
- SOCY/ WGST 3700 - Sociology of the Family


## Writing Minor

## Introduction

Please click here to see English department information.
The writing minor allows students to complement their area of major study with systematic experience in writing.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Minor

- Please see your CLAS advisor.


## General Requirements

To earn a degree, students must satisfy all requirements in each of the areas below, in addition to their individual major requirements.

- CU Denver General Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Students minoring in writing must complete a total of 15 hours (excluding ENGL 1010, 1020, 2030).
2. None of the required 15 hours may be taken pass/fail.
3. Only courses completed with a grade of $C(2.0)$ or better may be counted toward the minor.
4. A minimum of 9 upper-division hours of work in the minor must be taken with CU Denver English faculty.
5. Courses in a minor cannot be counted toward the English Major or English Writing major.

Take all of the following required courses:

- ENGL 2060 - Introduction to Writing Studies
- ENGL 3084 - Multimedia Composition

Take one of the following courses:

- ENGL 3160 - Language Theory
- ENGL 4080 - History of English Language

Take one of the following courses:

- ENGL 3154-Technical Writing
- ENGL 3170 - Business Writing
- ENGL 4190 - Special Topics in Rhetoric and Writing (non-repeatable)

Take one 3000-level or 4000-level ENGL course.

## Dual Degree Programs

## 5 Year Mathematics BS/Statistics MS

Return to: Programs

## 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

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## 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 $\mathbf{4}$ 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.

## Chemistry BS/MS

## Introduction

Please click here to see Chemistry department information.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

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 options.


## CLAS BA/MPA

## Introduction

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 Process

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:
CLAS Graduation Requirements (Take in addition to the University Core)

- Communicative Skills (3 hours)
- Foreign Language- Second semester proficiency (0-10 hours)
- Humanities (3 hours)
- Behavioral Sciences (3 hours)
- Social Sciences (3 hours)
- Biological and Physical Sciences, Mathematics (3-4 hours)
- Total Hours of CLAS Graduation Requirements: 15-26

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

1. BA/MPA students may choose from any CLAS major.
2. 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.

## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. BA/MPA students may choose from any CLAS major.
2. BA/MPA students may choose to do a general MPA or select an MPA concentration in local government, nonprofit management, environmental policy, emergency management and homeland security or domestic violence.
3. Students must maintain a 3.5 GPA in CLAS coursework.
4. Students may complete a maximum of 18 semester hours of SPA graduate course work while classified as an undergraduate student.
5. Students must maintain a 3.0 or higher GPA in public affairs coursework.
6. Student must successfully complete the capstone course in a semester AFTER all core courses are completed. A thesis option is available. Interested students should contact their SPA faculty advisor.
7. 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 fulfill all the requirements for graduation for CLAS:

- 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)

Note: It is highly recommended that students complete a course in American government, statistics and economics before applying to the MPA program

Students must fulfill all the requirements for graduation from SPA:

- Total of 36-39 semester hours in public affairs
- $\quad$ 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.


## Criminal Justice BA/MCJ

## Introduction

Please click here to see School of Public Affairs information.
The dual BA/MCJ program is designed to allow students to work concurrently toward the BA in criminal justice and the master of 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.

## Program Delivery

- Courses are offered on campus, online, and in hybrid formats.


## Declaring This Major

Both current CU Denver students and new transfer students are eligible to apply to the Criminal Justice BA/MCJ Dual Degree 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 - Criminology \& 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

Interested students should contact their BA academic advisor as early as possible to ensure proper planning for the five year degree.

Students should apply when they have accumulated 75-90 credit hours. The following steps should help in the application process:

- 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.
- 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
- 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 official GRE or LSAT exam

Admission to the $\mathrm{BA} / \mathrm{MCJ}$ program is competitive. Applicants will be evaluated on the following:

- Grade point average (overall and in criminal justice course work)
- Grade trend (improving, consistent, or declining)
- Total number of credit hours completed
- Likelihood of success and persistence based from the Statement of Intent and Reference Letter 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.


## General Requirements

To earn a 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
- School of Public Affairs Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. Student must have a minimum of 30 hours of resident credit; 21 out of the last 30 hours in resident course work.
2. Students must have a minimum of a B (3.0) in each required core MCJ course.
3. A minimum of 3.0 CU cumulative grade point average is required in all graduate level courses.
4. Students must successfully complete master of criminal justice capstone or thesis.
5. Students must fulfill all college and major requirements.
6. 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.
7. Students must have a full acceptance to the Graduate School and the master in criminal justice program.
8. Students must have a minimum of a 3.0 CU cumulative grade point average in undergraduate criminal justice courses.
9. The MCJ will be conferred once the student has completed all requirements of the master of criminal justice degree.
Take 144 total semester credit hours.
Take 37-38 semester credit hours in the general education core curriculum.

Take 46-48 semester credit hours in general electives.
Take 21 semester hours of undergraduate criminal justice course work.
Take 18 upper-level (3000 or higher) semester credit hours in criminal justice.
Take 45 total semester hours of upper-division course work (3000 and above).
Take a minimum of $\mathbf{3 6}$ semester hours of graduate-level course work (5000 and above).

## Economics BA/MA

Return to: Programs

## Introduction

Please click here to see Economics department information.

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

## Course requirements

Undergraduate required courses (30 or 31 credit hours):

- ECON 2012 - Principles of Microeconomics
- ECON 2022 - Principles of Macroeconomics
- ECON 4071 - Intermediate Microeconomic Theory
- ECON 4081 - Intermediate Macroeconomic Theory
- ECON 4811 - Introduction to Econometrics
- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 2421 - Calculus III
- MATH 3382 - Statistical Theory (3 hours) or ECON 3811 - Statistics with Computer Applications (4 hours)


## Undergraduate electives (9 credit hours):

Three undergraduate economics courses and at least 2 of them must be at 4000 -level

## Graduate courses (27 credit hours):

All graduate-level courses with ECON 5803 (Graduate Mathematical Economics) being either waived or taken as an elective.

## Total economics/mathematics credit hours $=66$ or 67

Total credit hours for the combined degrees $=135$

Note: the mathematics courses that students take also fulfill some of CU Denver (up to 8 hours) and CLAS (up to 4 hours) graduation requirements.

## Dual credits

Students need to take only three electives at the undergraduate level; the three electives taken at the graduate level are double counted in fulfilling both BA and MA graduation requirements. ECON 5803 (Graduate Mathematical Economics) is waived or can be counted as one graduate-level elective. The total dual credits are 12 hours.

## Additional graduation requirements

All other grade and GPA requirements towards the BA and MA degrees (e.g., a C- or better is needed in each undergraduate-level required course and a B- or better is needed in each graduate-level required course)

## Admission requirements

1. Meet all general admission requirements of the Graduate School
2. Be a current CU Denver Economics major with a GPA of 3.5 or better
3. The following courses must have been completed at CU Denver with a grade of B+ or better: MATH 2411, MATH 2421, ECON 4071, and ECON 4811
4. Students should apply in the semester when requirement 3 is satisfied (typically in the end of the fall semester of their junior year - as in the sample curriculum below)
5. Students who do not meet requirements 2 and 3 may apply, but must submit GRE scores and two letters of recommendation; otherwise both are waived

## Economics BA/Mathematics BS Dual Degree

## Introduction

Please click here to see Economics department information or here for Mathematical and Statistical Sciences department information.

A solid training in the mathematical and statistical sciences is fundamental to optimally prepare economics students for graduate school. A dual degree in economics and mathematics will substantially increase program quality and career prospects for our students, as well as enhance the reputation of the economics program at CU Denver. Similarly, a solid training in quantitative and qualitative economic principles offers significant benefits to mathematics majors who seek industrial and/or consulting positions.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them

## Program Delivery

- This is an on-campus program.


## Declaring This Major

- Click here to go to information about declaring a major.


## General Requirements

To earn a 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
- Click here for information about Academic Policies


## Program Requirements

1. No pass/fail grades may count toward the dual degree.
2. The minimum grade for all economics classes taken at CU Denver and applied toward the major is C(one D - grade is allowed for one economics elective).
3. A minimum GPA of 2.5 is required for all ECON courses. Note: Only courses taken at CU Denver will apply.
4. The minimum grade for all mathematics classes taken at CU Denver and applied toward the major is C-
5. A minimum GPA of 2.25 is required for all CU Denver mathematics classes applied to the major.
6. In addition to the CLAS residence requirements, the Economics Department requires that all courses other than Econ 2012 and Econ 2022 require written department approval to be transferred in as satisfying major requirements.
7. Additionally, the Mathematics Department requires that at least 15 upper division Mathematics credits must be taken at CU Denver. The Economics Department requires that Graduating seniors must submit the three best papers that the student wrote in any three separate courses taken in the Economics Department for the outcomes assessment of the Economics program.
8. The three papers should be handed in at one time in a folder to the Economics office, before the first day of the month in which the student plans to graduate.
9. The Mathematics Department requires that In the semester of graduation, students must submit a portfolio consisting of two papers, typically written for previous courses, that demonstrate mathematical and writing proficiency; participate in an exit interview, which may be scheduled by the department administrative assistant; and complete a senior survey, available from the department administrative assistant.
Take all of the following Economics courses:

- ECON 2012 - Principles of Economics: Macroeconomics
- ECON 2022 - Principles of Economics: Microeconomics
- ECON 4071 - Intermediate Microeconomic Theory
- ECON 4081 - Intermediate Macroeconomic Theory
- ECON 4811 - Introduction to Econometrics

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 3200 - Elementary Differential Equations
- MATH 4310 - Introduction to Real Analysis I
- MATH 4650 - Numerical Analysis I
- MATH 4779 - Math Clinic
- MATH 4810 - Probability
- MATH 4820 - Introduction to Mathematical Statistics

Take one of the following courses:

- MATH 3301 - Introduction to Optimization in Operations Research
- MATH 3302 - Simulation in Operations Research
- MATH 4387 - Applied Regression Analysis
- MATH 4409 - Applied Combinatorics
- MATH 4733 - Partial Differential Equations
- MATH 4791 - Continuous Modeling
- MATH 4792 - Probabilistic Modeling
- MATH 4793 - Discrete Math Modeling
- MATH 4794 - Optimization Modeling

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 six Economics elective courses or five Economics elective courses plus one Mathematics elective course:

- Any six three semester hour courses (four of them must be 4000-level) taken in Economics may satisfy this requirement, other than internships and independent studies (which require the approval of the department chair). Note: ECON 3801 and ECON 3811 cannot be counted as electives. or
- One of the following Mathematics courses can be counted as one Economics elective (it may also be counted as one Mathematics required course or one Mathematics elective):
- MATH 3301 - Introduction to Optimization in Operations Research
- MATH 3302 - Simulation in Operations Research
- MATH 4387 - Applied Regression Analysis
- MATH 4390 - Game Theory
- MATH 4450 - Complex Variables
- MATH 4733 - Partial Differential Equations
- MATH 4830 - Applied Statistics
- MATH 5350-Mathematical Theory of Interest

Take two Mathematics elective courses or one Mathematics elective course plus one Economics elective course:

- Students must choose two approved Mathematics electives (at least three semester hours) above 3000, excluding MATH 4012, 4013, 4014, 4015 and 4830 or
- One of the following Economics courses can be counted as one Mathematics elective (and can also be counted as one Economics elective):
- ECON 4030 - Data Analysis with SAS
- ECON 4110 - Money and Banking
- ECON 4150 - Economic Forecasting
- ECON 4320 - Financial Economics
- ECON 4430 - Economic Growth
- ECON 4550 - Game Theory and Economic Applications
- ECON 4610 - Labor Economics
- ECON 4740 - Industrial Organization


## Public Service BA/MPA

## Introduction

The dual Bachelor of Arts in Public Service/Master of Public Administration degree allows high-performing students to earn both degrees in an accelerated timeframe, saving students both time and money. Students graduating with the dual BAPS/MPA degree are prepared for leadership and management roles in public service, including local, state, and federal governmental agencies and in nonprofit and nongovernmental organizations. Both the BAPS and the MPA degrees are offered fully online, providing students with the flexibility to schedule courses around the reality of family and work demands while also engaging both local and fully online students in public service opportunities in their own communities.

The BAPS/MPA degree program offered by the School of Public Affairs allows high-performing students to count 18 credit hours towards both the BAPS and the MPA degrees. Eligible students are those who have completed at least 75 credits with a minimum 3.5 GPA in the BAPS major and a 3.0 overall GPA, completed the undergraduate Core Curriculum, and who meet the other requirements listed below.

## Admissions Requirements and Process

Interested students should contact their BAPS academic advisor as early as possible to ensure proper planning for the five year degree.

Please note: Acceptance into the dual BAPS/MPA program does not guarantee acceptance into the MPA program.

## 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 Bachelor of Arts in Public Service major
- Completed the University of Colorado Denver's undergraduate core curriculum
- Completed 75 semester credit hours
- Completed the following 15 semester credit hours in Public Service:
- PUAD 1001 - Introduction to Public Service
- PUAD 2001 - Management for Public Service
- PUAD 3001 - Financial Management for Public Service
- PUAD 3002 - Program Design, Evaluation, and Decision-Making
- PUAD 4001 - Ethics and Public Service
- Transfer Public Service courses must have been approved and accepted toward the major
- Minimum 3.0 cumulative GPA
- Minimum 3.5 cumulative GPA in Public Service courses
- Completed or scheduled official GRE or LSAT exam


## Application Process

Students must apply no later than the semester in which they first earn 20 credits toward the BAPS degree, most likely the second semester of their junior year. For full consideration, students must submit all application materials by Oct. 15 for admission to the following spring semester and by March 15 for admission to the fall semester. The following steps should help in the application process:

1. Plan ahead when scheduling courses through the junior year. The five required public service 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 School of Public Affairs 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.
a. Length: 1 to 2 pages
b. The statement should describe:
i. Applicant's reasons for undertaking graduate study in Public Administration
ii. Applicant's future career plans
iii. Planned area of concentration, if any, within Public Administration
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:
a. Personal statement of purpose
b. One letter of recommendation from a School of Public Affairs faculty member
c. School of Public Affairs' BAPS/MPA application form
d. Official GRE or LSAT scores

## Admission Criteria

Admission to the BAPS/MPA program is competitive. Applicants will be evaluated on the following:

1. Grade point average (overall and in public service coursework)
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 Purpose and Reference Letter
5. Official GRE or LSAT scores

Students who are not admitted to the BAPS/MPA program are eligible to reapply after completing an additional 12 semester credit hours. Students can apply and be considered for admission to the dual BAPS/MPA program a maximum of two times.

## BAPS/MPA Program Matriculation

Students must successfully complete (B-, or better) a minimum of 3 semester credit hours of graduate public administration course work each semester following admission to the BAPS/MPA program. A maximum of 18 graduate semester credits can be completed as a BAPS/MPA student, for dual credit.

Students must maintain a minimum 3.0 cumulative grade point average for all course work and a 3.5 grade point average for the BAPS major.

The School of Public Affairs reserves the right to rescind a BAPS/MPA student's admittance to the dual program if at any point the students' grade point average falls below the requirements listed above.

## Tuition and Fees

Students will be assessed tuition and fees at the undergraduate rate until the Bachelor of Arts in Public Service degree is conferred.

Students will assess tuition and fees at the graduate level upon formal acceptance to the Masters of Public Administration program.

## General Requirements

To earn a 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
- School of Public Affairs Graduation Requirements
- Click here for information about Academic Policies


## Program Requirements

1. 141 total semester credit hours successfully completed
2. $37-38$ semester credit hours in the general education core curriculum
3. $46-48$ semester credit hours in general electives
4. 15 semester hours of undergraduate public service coursework
5. 45 total semester hours of upper-division course work ( 3000 and above)
6. Minimum 3.0 CU cumulative grade point average in undergraduate public service courses
7. Full acceptance to the Graduate School and the Master of Public Administration program
8. Minimum 36 semester hours of graduate-level course work ( 5000 and above)
9. Minimum of 30 hours of resident credit; 21 out of the last 30 hours in resident course work
10. Minimum of a B- (3.0 GPA) in each required core MPA course
11. Minimum of 3.0 CU cumulative grade point average in all graduate level courses
12. Successful completion of Master of Public Administration capstone or thesis
13. Fulfillment of all college and major requirements

## Degree Confirmation

Students are eligible to receive the BA in Public Service degree once they have successfully completed 120 semester hours and all CU Denver undergraduate degree requirements. The MPA will be conferred once the student has completed all requirements of the Master of Public Administration degree.

## Licensure

## Undergraduate Teacher Licensure

## Undergraduate Teacher Education Program

Please click here to see School of Education \& Human Development information.
There are several pathways that CU Denver undergraduates can take to become a licensed teacher in Colorado. The BA major in Education and Human Development (EDHD) is within the School of Education and Human Development (SEHD) and includes three licensure areas - Early Childhood, Elementary Education, and Special Education. In the College of Liberal Arts and Sciences pathway, students major in CLAS and earn their secondary teaching license in the SEHD. The Education and Human Development major focuses on engaging Colorado's rapidly diversifying student and family population. It combines cutting-edge research with real classroom
experiences. You'll learn from innovative faculty members who are locally, nationally and internationally recognized for their research in elementary education. They will provide you with a robust knowledge base and relevant learning experiences in children's thinking, culturally responsive education, and supporting English language learners, as well as technology as it relates to teaching children in grades kindergarten through sixth grade. You'll engage in powerful classroom experiences and benefit from our rich 20-year history of partnerships that are a part of our Professional Development Schools. All of the teacher licensure pathways prepare 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 learn, achieve and grow.

## High Standards and Ongoing Assessment

The coursework and the internship experiences within each program 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 must demonstrate proficiency in both the university-based coursework and their internships. Students must also pass state content exams prior to their final semester in the program.

## Community College Articulation

CU Denver honors the community college articulation agreement to transfer the 60 designated semester hours from the community college to anyone admitted to the teacher licensure program. Students should make sure they are following the appropriate articulation agreement and should work with their SEHD or CLAS advisor early and often to ensure that all courses are transferred properly.

## SEHD Pathway (Elementary, Early Childhood and Special Education):

The CU Denver bachelor's degree with a major in Education and Human Development is a four-year, 123-126-credit-hour, interdisciplinary program with a licensure track in Elementary Education, Early Childhood and Special Education. It focuses on engaging Colorado's rapidly diversifying student and family population and combines cutting-edge research with real classroom experiences.

The program is offered in a hybrid format with both in-class and online coursework that support the needs of talented students from all backgrounds, including nontraditional and underrepresented students.

## Programs of Study

Additional information about the three tracks can be found on the SEHD website.

## Clinical Experiences in SEHD Pathway

Teacher candidates in the SEHD pathway work alongside community and P-12 partner educators from freshman to senior year. Students complete a community-based field experience block in their freshman year and school-based field experience blocks in years 2 and 3. Each block is carefully coordinated with 1-2 other teacher education courses and a bi-weekly seminar to provide a fully integrated learning experience between theory and practice. In their final, professional year they are placed in a full year internship within the CU Denver Professional Development School Network comprised of over 20 urban schools across numerous districts in the Denver metro region. Through these internships teacher education students live the life of a teacher for an entire academic year
while enrolled in the program. The internships begin gradually with two days a week early on and increase over time to five days per week by the end of the final semester 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. The schools are located in several Denver metropolitan districts serving large populations of low-income and/or culturally and linguistically diverse 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 team of university and school-based educators who collaboratively support the development of each candidate through weekly coaching feedback and the facilitation of collaborative learning community seminars on-site at the school to integrate theory and practice.

## Professional Year Admissions

After successfully completing the first 3 years of the program, all students must apply for admission into the professional year. Requirements for admission include a 3.0 GPA, positive letters of recommendation, successful evaluations of earlier clinical experiences, and a successful interview. (Students with a lower GPA may be considered under certain conditions. Please see SEHD website.)

## Advising

Students in the EDHD BA have a dedicated team of staff and faculty committed to their success. This includes an academic advisor and teams of faculty who support the different licensure programs.

SEHD accepts applications from incoming freshmen, current students at CU Denver, transfer students from community colleges or four-year institutions, individuals who are working as paraprofessionals, assistant teachers or developmental intervention assistants in early childhood centers or elementary schools and people who are interested in working in community-based organizations serving diverse families.

Email education@ucdenver.edu for more information. We encourage students to take advantage of the scholarships and grants that are available in this major.

## CLAS Major Pathway:

The second undergraduate teacher education route at CU Denver is a joint effort between the College of Liberal Arts and Sciences and the School of Education \& Human Development. Through this pathway, students earn a bachelor's degree through the College of Liberal Arts and Sciences and a teaching license through the School of Education \& Human Development.

Please note: The admission into the School of Education \& Human Development teacher education program for CLAS majors is a separate process from admission to the university or CLAS majors. See the SEHD website for application deadlines.

## CLAS Undergraduate Teacher Education Pathways

Undergraduate teacher candidates can earn a BA and a Colorado provisional teacher's license in the following areas:

- BA-English Literature Secondary English Licensure
- BS-Mathematics Secondary Mathematics Licensure
- BA-History Secondary Social Science Licensure
- BA-Political Science Secondary Social Science Licensure
- BA-Spanish Secondary Spanish Licensure
- BA-French Secondary French Licensure
- BS-Biology Secondary Science Licensure
- BS-Environmental Science Secondary Science Licensure


## Program Structure

The School of Education \& Human Development collaborates closely with faculty and administration in the College of Liberal Arts \& Sciences to ensure rigorous content preparation in areas of study aligned to the content knowledge necessary for licensed teachers. Students focus primarily on their major in CLAS during the first three years with opportunity to engage in four early education courses and a semester-long internship in a partner school. If admitted to the final professional year of teacher education, students will then spend two semesters simultaneously enrolled in teacher education coursework specific to their licensure area and a sequence of year-long internships in one of the program's Professional Development Schools.

## Clinical Experiences in CLAS Pathway

CLAS students engage in a full-semester early field experience block, spending one day a week in a metro area partner school in order to gain experience in a diverse classroom working with students with varying cultures, languages, and abilities. This field experience block also includes a coordinated teacher education course and a biweekly seminar. In their final, professional year students are placed in a full year internship within the CU Denver Professional Development School Network comprised of over 20 urban schools across numerous districts in the Denver metro region. Through these internships teacher education students live the life of a teacher for an entire academic year while enrolled in the program. The internships begin gradually with two days a week early on and increase over time to five days per week by the end of the final semester 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. The schools are located in several Denver metropolitan districts serving large populations of low-income and/or culturally and linguistically diverse 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 team of university and school-based educators who collaboratively support the development of each candidate through weekly coaching feedback and the facilitation of collaborative learning community seminars on-site at the school to integrate theory and practice.

## Professional Year Admissions

After successfully completing the first 3 years of the program, all students must apply for admission into the professional year. Requirements for admission include a 3.0 GPA, positive letters of recommendation, successful evaluations of earlier clinical experiences, and a successful interview. (Students with a lower GPA may be considered under certain conditions. Please see SEHD website.)

## Advising

Undergraduate teacher candidates from CLAS will have a team of individuals who work with them throughout the completion of their bachelor's degree and teacher licensure. The following are the members of the advising team:

## College of Liberal Arts and Science (CLAS) Education Advisor

The CLAS advisor will assist you upon entry to the university though graduation. The CLAS advisor will monitor your progress through the core curriculum, pre-licensure curriculum, eligibility requirements for the licensure program and transfer credits.

## Faculty Advisor

A faculty advisor designated within the academic department works with undergraduate teacher education students pursuing secondary licensure regarding specific requirements within academic major (i.e., English, history, mathematics, Spanish, French, and political science). See the CLAS advisor for specific names and contact information.

## School of Education and Human Development (SEHD) Advisor

During the Professional Year, all CLAS teacher candidates will be supported by an SEHD advisor to ensure licensure completion (Lawrence St. Center Bldg., 701; 303-315-6300). The Advisor in SEHD is also available early on to help with questions about program completion, taking the state content exams and other general questions.

## CLAS Pathway Undergraduate Academic Planning Sheets

Developed in collaboration with the academic departments and SEHD teacher education program faculty, advisors will work with the teacher candidates on an academic planning sheet. There is little flexibility in the program course requirements as these requirements meet and exceed the Colorado Department of Education's teacher education professional and content standards.

## Programs of Study

Due to the complex nature of state mandated influences on teacher preparation courses and consistently evaluating this program for students, please refer to the most current version of the teacher education program handbook for academic requirements for this program.

## Undergraduate Certificate Programs

## Applied German Language Skills Undergraduate Certificate

## Introduction

Please click here to see Modern Language department information.
The undergraduate certificate in applied German language skills is designed for students of any discipline who wish to acquire and demonstrate to potential employers that they possess a fluid working knowledge of the German language and understanding of the cultures in which German is spoken. The completion of the requirements for this certificate can also serve as a means for nondegree-seeking professionals to develop a working competency in the German language and culture for use in such areas as international business, education, genealogy, transatlantic travel, academic research, translation and many other fields.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Certificate

- All currently enrolled students at CU Denver (undergraduate or graduate) in good standing (including nondegree-seeking students) are eligible for admission into the program.
- Any student who already possesses an undergraduate degree is also qualified for admission into the program, but must apply to the university as a nondegree-seeking student.
- Students working toward a baccalaureate degree who are currently enrolled in a college-level institution other than CU Denver are also eligible for certification.


## General Requirements

- Click here for information about Academic Policies.


## Certificate Requirements

1. Students must maintain a minimum 3.0 GPA in all course work applied to the certificate.
2. Students must submit documentation that they have passed an internationally recognized German language skills examination.

Take $\mathbf{1 5}$ hours of German Language Skills:

Students must complete a minimum of 15 semester credit hours of upper-division German language skills courses. These courses are defined as those areas of study in which grammar, vocabulary, pronunciation and/or communicative abilities in German are the primary focus of instruction. Up to six credit hours of upper-division German skills courses may be applied as transfer credit from outside, college-level institutions. Alternately, students may apply up to nine credit hours of officially recognized study abroad credit toward this requirement.

Take 9 hours of German Culture:
Students must complete a minimum of nine semester credit hours of German culture courses where the primary focus of instruction addresses any facet of Austrian, German and/or Swiss culture. These courses may be completed at any level (lower or upper division as well as graduate) and in any combination of disciplines, provided that the student supplies evidence that a significant portion of each course is devoted to Austrian, German and/or Swiss culture. This includes but is not limited to history, philosophy, political science, literature (in German or in translation) and other German cultural topics. Up to three credit hours of culture courses may be applied as transfer credit from outside, college-level institutions. Alternately, students may apply up to six credit hours of officially recognized, documented university-level course work (or the equivalent) in a German-speaking country.

## Applied Statistics Undergraduate Certificate

## Introduction

Please click here to see Mathematical and Statistical Sciences department information.

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.

Programs are offered at the undergraduate and graduate level.
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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

This is an on-campus program.

## Declaring This Certificate

- Admission requirements: Completion of calculus 1, 2 and 3 as well as linear algebra, each at a B- or above. Students enrolled in the certificate program will be expected to utilize concepts from calculus and linear algebra without the use of technology, e.g., evaluation of limits, derivatives and integrals.
- Click here to see and print the application form.


## General Requirements

- Click here for information about Academic Policies.


## Certificate Requirements

1. Students must maintain a 3.0 GPA or above in certificate courses with no credit given for courses with grades below B-
2. Since a certificate is a University of Colorado Denver certification of a student's specialized knowledge in an advanced subject area, all courses in the certificate program are expected to be taken in residency at the University of Colorado Denver.
3. Students much be enrolled in one course per year to maintain their status in the certificate program.
4. Certificates must be completed within 3 years from matriculation.
5. Students can count up to 4 semester credits of independent study coursework toward this certificate. Take one of the following Probability courses:

- MATH 3800 - Probability and Statistics for Engineers
- MATH 4810 - Probability (recommended)

Take the following Mathematical Statistics course:

- MATH 4820 - Introduction to Mathematical Statistics

Take the following Advanced Applications course:

- MATH 4387 - Applied Regression Analysis

Take one of the following elective courses:

- Any statistics course in the Department of Mathematical and Statistical Sciences at the 4000 level or higher (must be pre-approved by the Certificate Coordinator). MATH 4830 cannot apply toward the certificate.
- ECON 4030 - Data Analysis with SAS
- ECON 4150 - Economic Forecasting
- ECON 4811 - Introduction to Econometrics
- GEOG 4770 - Applied Statistics for the Natural Sciences
- GEOL 4770 - Applied Statistics for the Natural Sciences
- Equivalent course pre-approved by the Certificate Coordinator

Complete an independent data analysis project:

- MATH 4840 - Independent Study (1 hour) or
- an equivalent course pre-approved by the certificate coordinator.

Note: An independent data analysis project includes a report and presentation to demonstrate proficiency with data analysis techniques and a statistical computing software package.

## Biochemistry Certificate

## Introduction

Please click here to see Chemistry department information.

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.

## Program Delivery

- This is an on-campus program.


## Declaring This 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 students and students pursuing a chemistry minor.
- 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 (CHEM 2031, CHEM 2038, CHEM 2061 and CHEM 2068 or equivalent)
- 2 semesters General Biology, with laboratories (BIOL 2051, BIOL 2071, BIOL 261 and BIOL 2081 or equivalent)
- 2 semesters Organic Chemistry, with at least 1 semester laboratory (CHEM 3411, CHEM 3421 and either CHEM 3418 or CHEM 3428 or equivalent)
- A grade of $\mathrm{C}(2.0$, not C -) or better in each of the Prerequisites is required.


## General Requirements

- Click here for information about Academic Policies


## Certificate Requirements

1. The required courses including electives must be completed at CU Denver with a grade of C (2.0, not C-) or better in each class, and a minimum GPA of 2.7 among the Required Courses including electives counted toward the certificate.
2. All courses must be taken within ten years of receipt of the Biochemistry Certificate.

Take one of the following Biochemistry courses:

- CHEM 3810 - Biochemistry
- CHEM 4810 - General Biochemistry I
- CHEM 5810 - Graduate Biochemistry I

Take one of the following Biochemistry courses:

- CHEM 4820-General Biochemistry II
- CHEM 5830-Graduate Biochemistry II

Take the following course:

- BIOL 3611 - General Cell Biology

Take two of the following Electives courses:

- 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 3452 - Biophysics of the Cell NM
- BIOL 3124 - Introduction to Molecular Biology
- BIOL 3832 - General Genetics
- BIOL 4125 - Molecular Biology Laboratory
- BIOL 3225 - Human Physiology
- BIOL 4064 - Advanced Cell Biology
- BIOL 4068/ BIOL 5068 - The Cell Cycle
- BIOL 4144 - Medical Microbiology
- BIOL 4126 - Molecular Genetics

3-credit internship or independent study in Biochemistry, or a special topics course (pre-approved by the chemistry majors advisor)

- PHYS 3151 - Biophysics Outlook I and
- PHYS 3161 - Biophysics Outlook II
(these two 1-credit courses together fulfill one elective requirement)


## Biotechnology Certificate

## Introduction

Please click here to see Integrative Biology department information.

Biotechnology is a rapidly growing field in Colorado and nationally that encompasses many disciplines. Agriculture, biofuels, biomedical biotechnology, pharmaceuticals, microbiology, and medical device development are all wellrepresented areas of biotechnology in Colorado. The Department of Integrative Biology offers a Certificate program in Biotechnology that allows students to acquire foundational knowledge and specialized skills relevant to these research areas. The certificate is designed to provide a strong background in biochemistry and molecular biology, with an emphasis on applied training via lab work and research experiences. Upon completion of the requirements, students obtain recognition in the form of a Certificate and official designation on their transcript.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Certificate

Students may earn the certificate while working on their Bachelors Degree; or, the courses may be taken through non-degree admission. All admissions questions should be directed to the Registrar's office (303-556-2389). All questions regarding tuition and fees should be directed to the Bursar's office (303-556-2710). Prerequisites:

Individual courses used to earn the Biotechnology Certificate carry prerequisites that must be met before enrolling.

Students interested in completing the Biotechnology certificate should contact the Department of Integrative Biology. A certificate will be issued and noted on your transcript upon proof of satisfactory completion of the course work. You must contact the Biotechnology Certificate faculty advisor no later than the start of the semester of graduation in order for the certificate recognition to appear on your transcripts.

## General Requirements

- Click here for information about Academic Policies.


## Certificate Requirements

1. Individual courses used to earn the Biotechnology Certificate carry prerequisites that must be met before enrolling.
2. All courses used to satisfy the requirements for the Certificate must be completed with a grade of C - or better.
3. All courses used to satisfy the requirements for the Certificate must be completed at CU Denver.
4. All courses used to satisfy the requirements for the Certificate must be completed within a five year period. Take all of the following courses:

- BIOL 4024 - Introduction to Biotechnology
- BIOL 3124 - Introduction to Molecular Biology
- BIOL 4125 - Molecular Biology Laboratory
- CHEM 4820-General Biochemistry II or
- CHEM 3810 - Biochemistry
- BIOL 3939 - Internship or
- BIOL 4840 - Independent Study or
- BIOL 4880 - Directed Research

Take one elective from among those listed below, or a course pre-approved by Biotechnology Certificate faculty advisor:

- BIOL 3612 - Cell Biology Laboratory
- BIOL 3763 - Biostatistics
- BIOL 4051 - Advanced Topics In Microbiology
- BIOL 4126 - Molecular Genetics
- BIOL 4144 - Medical Microbiology
- BIOL 4622 - Topics in Immunology
- BIOL 4634 - Biology of Cancer
- BIOL 4064 - Advanced Cell Biology
- CHEM 3111 - Analytical Chemistry
- CHEM 4121 - Instrumental Analysis
- CHEM 4828- Biochemistry Lab
- CHEM 4835 - Biochemistry of Gene Regulation and Cancer

You must contact the Biotechnology Certificate faculty advisor (Dr. Chris Miller) no later than the start of the semester of graduation in order for the certificate recognition to appear on your transcripts.

## Commodities Certificate

Return to: Programs

## Introduction

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.

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.

## Program Delivery

This is an on-campus program.

## Declaring This Certificate

Please contact the Commodities Center for more information.

## Criminology Certificate

## Introduction

Please click here to see Sociology department information.
Crime and society's responses to it represent core concerns for social scientists, policy makers, civic leaders, community organizations, and citizens across the globe. Criminology is the field of study dedicated to understanding crime as a social phenomenon. Criminologists study the social construction of laws, nature and causes of crime, reactions to the breaking of laws, and the prevention, control and treatment of crime. The Department of Sociology's Criminology Certificate offers an essential foundation for students pursuing careers in criminal justice, victim and community services, criminal law, and non-profit organizations in local and international contexts. The certificate also prepares interested students for law school and graduate programs in sociology and criminology. Students may ultimately use this training to conduct social research on crime, influence public policy, and inform government decisions about crime and law.

Upon successful completion of the certificate, students will:

- Understand the theoretical explanations for the social and behavioral causes of crime and crime reduction
- Possess a fundamental understanding of the criminal-legal and political institutions responsible for crime control and policy
- Be familiar with currents trends in criminological thought, research, and activism
- Be able to apply the technical skills of their methodological training to conduct crime analyses and outcomes assessments for programs aimed at crime prevention
- Engage in original research projects involving criminological topics


## Program Delivery

- This is an on-campus program.


## Declaring This Certificate

- Eligibility: While housed in Sociology, criminology is in fact a multidisciplinary field that draws from diverse liberal arts fields, including Psychology, Political Science, Communications, History, Philosophy, among others. Thus, CU Denver undergraduate students in any discipline can enroll in the program.
- Application procedures: Students are encouraged to apply for the Criminology Certificate at any point in their undergraduate studies. To apply, students should print and attach a completed Criminology Certificate Application to an unofficial transcript. These documents should be submitted to the Criminology Certificate Administrator. Once the application is approved, students will be contacted about their acceptance into the program.


## General Requirements

- Click here for information about Academic Policies.


## Program Requirements

1. A minimum of 15 hours is required for this certificate.
2. To obtain the certificate, students must achieve a 3.0 GPA average in all approved criminology courses.
3. Credits applied to the certificate must be earned at CU Denver. (If students have completed a course required for the certificate elsewhere, they may add the needed credits in the form of additional elective credits drawn from the approved elective courses.)
4. The certificate will be awarded when the student graduates with the bachelor's degree.

Take the following required course:

- SOCY 3490 - Criminology

Take two of the following courses:

- SOCY 3115 - Quantitative Methods \& Analysis and
- SOCY 3119 - Qualitative Methods

OR
2 approved methods courses in the student's major discipline (e.g. PSYC 2090 \& PSYC 3090; PSCI 3011; PHIL 3440 \& PHIL 2441; ECON 3801 \& ECON 3811; GEOG 2080 \& GEOG 4080). Questions about eligible methods course substitutions should be directed to the criminology certificate administrator.

Take two of the following approved elective courses:

- SOCY 3040 - Drugs, Alcohol \& Society
- SOCY 4340 - Juvenile Delinquency
- SOCY 4460 - Hate Groups and Group Violence
- SOCY 4700 - Sociology of Law
- SOCY 4780 - Violence in Relationships
- ANTH 4090 - Drug Syndemic
- COMM 4040 - Communication, Prisons, and Social Justice [Prerequisite: COMM 2020, or instructor consent]
- COMM 4680 - Mass Media Law And Policy
- ECON 3400 - Economics of Sex and Drugs [Prerequisite: ECON 2022]
- ETST 3704 - Culture, Racism and Alienation
- HIST 3231 - Famous U.S. Trials
- HIST 4308 - Crime, Policing, and Justice in American History
- PHIL 3280 - War and Morality
- PHIL 4260 - Philosophy of Law
- PHIL 4812 - Special Topics in Philosophy
- PSCI 3034 - Race, Gender, Law and Public Policy
- PSCI 4185 - Corruption in the U.S. and Abroad [Prerequisite: PSCI 1001 or 3022]
- PSCI 4427 - Law, Politics and Justice
- PSCI 4807 - Political Violence
- PSYC 3265 - Drugs, Brain and Behavior
- PSYC 3612 - Domestic Abuse


## Cultural Diversity Studies Undergraduate Certificate

## Introduction

Please click here to see Ethnic Studies department information.

The undergraduate certificate in cultural diversity studies is designed to appeal to undergraduate students with a background in any major. It will allow students to demonstrate to potential employers that they possess the multicultural skills and knowledge necessary to succeed in the workplace. Students will enroll in department courses that focus on the historical context in which race and culture have emerged in the United States.

This certificate is also targeted to non-degree-seeking professionals who seek to acquire multicultural knowledge and the skills necessary to ensure their success in professional environments. Students will be encouraged to think critically about race and race relations. Their expanded understandings of the implications of race and culture in work environments will ensure employers that they offer the highest quality employees opportunities in employment or advancement.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

Additional information about the undergraduate certificate in cultural diversity studies may be obtained from ethnic studies department at 303-556-6560 or email: ethnic_studies@ucdenver.edu

## Program Delivery

- This is an on-campus program and all courses are available online.


## Declaring This Certificate

- Please see your advisor.


## General Requirements

- Click here for information about Academic Policies.


## Certificate Requirements

1. The undergraduate certificate in cultural diversity studies requires 12 semester hours (four courses).
2. A minimum grade of C must be earned in each of the four courses completed as part of the certificate.
3. All credits for the certificate must be earned at CU Denver.
4. A minimum of 6 semester hours for the certificate must be completed at the upper division level. Take the following required Cultural Diversity Studies course:

- ETST 2000 - Introduction to Ethnic Studies

Choose three Elective courses from any Ethnic Studies Department courses, including the following:

- ETST 2155 - African American History
- ETST 2294 - Race and the Media
- ETST 3254 - Race and Ethnicity in the Inner City
- ETST 3297 - Social History of Asian Americans
- ETST 3396 - History of the American Indian
- ETST 3704-Culture, Racism and Alienation
- ETST 4558 - Chicano and Latino Politics

There are crosslisted courses in a variety of departments, including history, political science and sociology. Any cross listed course is acceptable. You must register for it under ETST numbers. A complete listing of department offerings and crosslisted courses can be obtained every semester from the Ethnic Studies Department web page or by calling our office at 303-556-6560 for a copy.

## Democracy and Social Movements Undergraduate Certificate

## Introduction

Please click here to see Political Science department information.

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.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Certificate

- Please see your advisor.


## General Requirements

- Click here for information about Academic Policies.


## Certificate Requirements

1. The undergraduate certificate requires five program courses ( 15 credits, with at least 6 credits at the upper division level), one in each of the four political science subfields and the capstone seminar, as well as completion of an appropriate experiential learning requirement.
2. All courses for the certificate must be taken in residency at CU Denver, and completed with a grade of $C$ or higher.
3. A minimum GPA of 2.0 is required for the undergraduate certificate.
4. Topics courses approved by the program advisor can also satisfy course requirements.
5. All students, whether working toward a degree or as a non-degree student, are eligible for the certificate.

Take one of the following International Politics courses*:

- PSCI 4216 - International Politics: Human Rights
- PSCI 4225 - Democracy and Democratization
- PSCI 4265 - Social Justice And Globalization
- PSCI 4808-Strategies of Peacebuilding

Take one of the following Comparative Politics courses*:

- PSCI 4146 - Indigenous Politics
- PSCI 4224 - Dictatorships in 21st Century
- PSCI 4225 - Democracy and Democratization
- PSCI 4555 - International Women's Resistance
- PSCI 4808 - Strategies of Peacebuilding

Take one of the following American Politics courses*:

- PSCI 3035 - Political Movements: Race and Gender
- PSCI 3914 - The Urban Citizen
- PSCI 4074 - Urban Politics

Take one of the following Political Theory courses*:

- PSCI 4207 - Theories of Social and Political Change
- PSCI 4265 - Social Justice And Globalization
*Note: Some courses appear more than once in different subfields; students should choose four different subfield courses, not count one toward two subfields.

Take the following Capstone course:

- PSCI 4206 - Social Movements, Democracy and Global Politics


## Complete the Experiential Learning Requirement:

Like the existing departmental experiential learning requirement for majors, this requirement can be fulfilled without taking course credits, for example, by documenting the inclusion of significant experiential learning/field work in regular course work, or by documenting significant relevant field work in one's professional life.

## Ethics Undergraduate Certificate

## Introduction

Please click here to see Philosophy department information.

The certificate in ethics is designed for students currently enrolled in a degree program as well as nondegree students.

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 their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Certificate

- Please see your advisor.


## General Requirements

- Click here for information about Academic Policies.


## Certificate Requirements

1. A total of 12 semester hours is required for an Ethics certificate.
2. A minimum of 6 semester hours completed for the certificate must be upper division.

Take four of the following Ethics courses:

- PHIL 1020 - Introduction to Ethical Reasoning
- PHIL 3002 - Ancient Greek Philosophy
- PHIL 3150 - History of Ethics
- PHIL 3200-Social and Political Philosophy
- PHIL 3250 - Business Ethics
- PHIL 3280 - War and Morality
- PHIL 3500 - Ideology and Culture: Racism and Sexism
- PHIL 3550 - Philosophy of Death and Dying
- PHIL 4150 - Twentieth Century Ethics
- PHIL 4242 - Bioethics
- PHIL 4250 - Environmental Ethics
- PHIL 4260 - Philosophy of Law
- PHIL 4500 - Feminist Philosophy
- PHIL 4700-Seminar in a Major Philosopher
- PHIL 4812 - Special Topics in Philosophy
- PHIL 4833 - Existentialism


## Families and Social Welfare Certificate

## Introduction

Please click here to see Sociology department information.
Families play a significant part in individuals' lives and society. In sociology, one approach is to view families as a small group, focusing on relational processes like support, socialization, conflict, and intimacy that constitute interactions among family members. Another approach views the family as a major social institution that interacts closely with other institutions including those affecting education, law, healthcare, religion, the economy, criminal justice, and welfare. The family-in its varied and diverse forms-is also key to understanding how inequality is experienced and reproduced in society, as substantial responsibility for caring, nurturing, and raising others is delegated to families. The interplay of these multiple levels-the micro or interpersonal, the meso or institutional, and the macro or structural-also interests sociologists, as individuals influence social structures and institutions, and the latter, in turn, affect family interactions and relationships. This certificate provides students a foundation for understanding the complex role of families and family members at multiple levels, as well as the social systems and organizations responsible for supporting families and individuals. The content and methods courses will prepare students for direct service positions working with individuals and families (e.g., human and social services), or research, policy or advocacy positions addressing family issues (e.g., housing, violence and abuse, parenting, social welfare). Students earning the certificate also will be well-positioned to pursue advanced degrees in social work, public health, counseling, law, sociology, or related disciplines.

Upon successful completion of the certificate, students will:

- Recognize the diversity of family structures within and across cultures
- Understand the theoretical perspectives explaining family behavior and relationships, and those addressing differences in the institution of the family across cultures and over time
- Be familiar with current trends in family structure, and recent research on family functioning and wellbeing, and how family research informs advocacy and policy work, and social welfare programs
- Be able to apply the technical skills of their methodological training to conduct analyses about families and family life, and outcomes assessments for social welfare programs aimed at helping families
- Engage in original research projects involving family-related issues


## Program Delivery

This is an on-campus program.

## Declaring This Certificate

- Eligibility: While housed in Sociology, the study of families and social welfare is in fact a multidisciplinary field that draws from diverse liberal arts fields, including Psychology, Political Science, Communications, and History, among others. Thus, CU Denver undergraduate students in any discipline can enroll in the program.
- Application procedures: Students are encouraged to apply for the Families and Social Welfare Certificate at any point in their undergraduate studies. To apply, students should print and attach a completed Families and Social Welfare Certificate Application to an unofficial transcript. These documents should be
submitted to the Families and Social Welfare Certificate Administrator. Once the application is approved, students will be contacted about their acceptance into the program.


## General Requirements

Click here for information about Academic Policies.

## Program Requirements

1. A minimum of 15 hours is required for this certificate.
2. To obtain the certificate, students must achieve a 3.0 GPA average in all approved families and social welfare-related courses.
3. Credits applied to the certificate must be earned at CU Denver. (If students have completed a course required for the certificate elsewhere, they may add the needed credits in the form of additional elective credits drawn from the approved elective courses.)
4. The certificate will be awarded when the student graduates with the bachelor's degree.

Take the following required course:

- SOCY 3700-Sociology of the Family

Take two of the following courses:

- SOCY 3115- Quantitative Methods \& Analysis
- SOCY 3119 - Qualitative Methods
- OR

2 approved methods courses in the student's major discipline (e.g. PSYC 2090 \& PSYC 3090; PSCI 011; PHIL 3440 \& PHIL 2441; ECON 3801 \& ECON 3811; GEOG 2080 \& GEOG 4080). Questions about eligible methods course substitutions should be directed to the criminology certificate administrator.

Take two of the following approved elective courses:

- SOCY 3010 - Sociology of Human Sexuality
- SOCY 3080 - Sex and Gender
- SOCY 4270 - Social Meanings of Reproduction
- SOCY 4290 - Aging, Society and Social Policy
- SOCY 4640 - Sociology of Childhood and Adolescence
- SOCY 4650 - Sociology of Adulthood and Aging
- SOCY 4780 - Violence in Relationships
- COMM 1041 - Interpersonal Communication
- COMM 3275 - Family Communication
- COMM 4262 - Mediation
- ECON 1010 - Economics of Social Issues
- ECON 3100 - Economics of Race and Gender
- ECON 4210 - Public Finance
- ETST 2125 - The Bi-Racial Family
- ETST 3230 - African American Family
- HIST 3488 - Tudor-Stuart England
- HIST 4219 - Depression, Affluence and Anxiety: U.S. History, 1929 to the Present
- HIST 4222 - U.S. Society and Thought to 1860
- HIST 4223 - U.S. Society and Thought Since 1860
- HIST 4303 - Sex and Gender in Modern Britain
- HIST 4492 - United States History, 1919-1945
- HIST 4493 - United States History, 1945-1973
- HIST 4494 - United States History, 1973-Present
- PHIL 3200 - Social and Political Philosophy
- PSCI 4009 - Politics of the Budgetary Process
- PSCI 4024 - State Politics: Focus Colorado
- PSCI 4084 - Local Government and Administration
- PSCI 4085 - Comparative Governance: Environment and Society
- PSCI 4324 - Politics, Public Policy and Leadership
- PSYC 3205 - Human Development I: Child Psychology [Prerequisite: PSYC 1000, 1005]
- PSYC 3215 - Human Development II: Adolescence and Adulthood [Prerequisite: PSYC 1000, 1005 or 3205]
- PSYC 3235 - Human Sexuality [Prerequisite: PSYC 1000, 1005]
- PSYC 3405 - Family Psychology [Prerequisite: PSYC 1000, 1005]
- PSYC 4485 - Psychology of Cultural Diversity
- CHIN 1000 - China and the Chinese


## Fundamentals of Business Alumni Certificate

## Introduction

The AACSB accredited CU Denver Business School provides a business certificate designed to introduce recent graduates from any major to the fundamentals of business and to equip them with the knowledge and skills that complement their major, helping launch their careers.

The business certificate consists of three courses designed for recent college graduates with a bachelor's degree in an area other than business. Emphasis is placed on developing the knowledge and skills that provide a practical business foundation.

Many hiring managers are looking for employees with business skills which may not be acquired in other highly specialized areas of study. The business fundamentals certificate gives you business knowledge and skills that employers want.

Over 300 business partners participate on boards and advisory councils, provide scholarships, advise on curriculum and provide internships and jobs to business school students.

When you are enrolled, you have access to Business School resources including:

- career coaching
- job opportunities
- networking
- paid internships
- job search boot camps
- career fairs

Program Delivery

This is an on-campus program.

## Declaring This Certificate

For more information and for assistance declaring this certificate, please contact the Business School at undergrad.advising@ucdenver.edu or 303-315-8100.

## Geographic Information Science Undergraduate Certificate

## Introduction

Please click here to see Geography and Environmental Sciences department information.
Certificate Advisor: Matt Cross
Email: 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.
These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.


## Program Delivery

- This is an on-campus program.


## Declaring This Certificate

- CU Denver undergraduate students in any discipline or major may be admitted to the program.
- 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 GISci certificate coordinator, and completing and signing the Application for GISci Certificate. 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.


## General Requirements

- Click here for information about Academic Policies.


## Certificate Requirements

1. Students must earn a 3.0 GPA average with no course below a " C " in any approved courses for the certificate.
2. The certificate will be awarded when the student graduates with the bachelor's degree.
3. To obtain the certificate, students must complete five core courses and one elective course, totaling 18 hours.
4. Although the five core courses may be taken in any order, it is advisable to begin with GEOG 2080Mapping and Map Analysis followed by GEOG 4080 - Introduction to GIS, since these courses familiarize students with many key concepts used in the other classes.
5. All core courses are offered on a yearly basis. Any alterations to the program MUST be approved by the GISci Coordinator.
6. 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 GISci Certificate Application Form. Please pay close attention to prerequisites for specific courses.
Take all of the following Geographic Information Science courses:

- GEOG 2080 - Introduction to Mapping and Map Analysis
- GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 4080 - Introduction to GIS
- GEOG 4081 - Cartography and Computer Mapping
- GEOL 4770 - Applied Statistics for the Natural Sciences or equivalent course approved by the GISci Certificate Coordinator.

Take one of the following Electives courses:

- GEOG 4070 - Remote Sensing II: Advanced Remote Sensing
- GEOG 4085 - GIS Applications for the Urban Environment
- GEOG 4090 - Environmental Modeling with Geographic Information Systems
- GEOG 4091 - Open Source Software for Geospatial Applications
- GEOG 4092 - GIS Programming and Automation
- GEOG 4095 - Deploying GIS Functionality on the Web
- GEOG 4235 - GIS Applications in the Health Sciences
- CVEN 5382 - GIS Spatial Database Development
- CVEN 5385 - GIS Relational Database Systems or an elective approved by the GISci Certificate Coordinator. Although only one elective is required to complete the Undergraduate GISci Certificate, it is strongly recommended that additional elective courses are taken to broaden the experience and knowledge of the student in GIS analysis and applications. A three-credit hour internship with a geospatial faculty sponsor is highly recommended.


## Launchpad Entrepreneurship Certificate

Return to: Programs

## Introduction

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.

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


## Program Delivery

This certificate can be earned in either downtown Denver at the Jake Jabs Center for Entrepreneurship or CU South Denver.

## Declaring This Certificate

For more details about Launchpad courses and registration, visit the Launchpad Certificate page.

## Mediation Undergraduate Certificate

## Introduction

Please click here to see Communication department information.
Mediation entails a third-party intervention designed to assist parties in managing conflict. Trained mediators are impartial process experts who learn to utilize communication and conflict philosophy and theories to increase the probability of more favorable outcomes between parties in conflict. The undergraduate certificate is designed for communication majors or any student interested in developing practical skills in alternative dispute resolution. The courses in this certificate focus on alternative dispute processes that include strategies for managing conflict in personal, public, legal, political, governmental and corporate contexts.

These certificate requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them. Please check spacing here and throughout.

## Program Delivery

- This is an on-campus program.


## Declaring This Certificate

- Students should apply for the Undergraduate Certificate in Mediation after the completion of the required courses.
- To apply, students must complete the certificate application (see the Communication Department website) and return it to Dr. Larry Erbert in room 3008 of the Student Commons Building, or mail to Department of Communication; P.O. Box 173364, Campus Box 176; University of Colorado Denver; Denver, CO 802173364. 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 Undergraduate Certificate in Mediation may be obtained from Dr. Larry Erbert, Department of Communication, 303-315-1918, Larry.Erbert@ucdenver.edu.


## General Requirements

- Click here for information about Academic Policies.


## Certificate Requirements

1. The Undergraduate Certificate in Mediation requires 12 semester hours (four courses).
2. A minimum of 9 semester hours of upper division coursework are required for this certificate.
3. A grade of B or higher must be earned in each course completed as part of the certificate (a grade of B-is not acceptable).
4. All of the credit hours for the certificate must be earned at the University of Colorado Denver.

Take the following core course:

- COMM 4262 - Mediation

Take at least one of the following two courses (students who take both classes take one elective rather than two; students who take only one must select two electives):

- COMM 4255 - Negotiations and Bargaining
- COMM 4260-Communication and Conflict

Take one or two of the following Elective courses:

- COMM 2140-Argumentation
- COMM 3271 - Communication and Diversity
- COMM 4240- Organizational Communication
- COMM 4282 - Environmental Communication
- COMM 4681-Communication Issues in Trial Court Practices and Processes


## Nonprofit Management Certificate

## Introduction

Please click here to see School of Public Affairs information.
The undergraduate Certificate in Nonprofit Management is designed to appeal to students with a background in any major, or non-degree students, who are interested in working in the nonprofit sector. Completion of the coursework requirements of the certificate and associated extracurricular field experiences allow the student to earn the additional credential of Certified Nonprofit Professional pursuant to standards and competencies set by the National Leadership Alliance.

The certificate is designed to allow students to demonstrate to potential employers that they have the knowledge and skills necessary to succeed in the nonprofit workplace. Competencies covered by the certificate include foundations and management of the nonprofit sector, cultural competence and diversity, and financial resource development, among others. In addition, students have the opportunity to gain real-world experience and connections through nonprofit internships and field experiences.

Additional information about the undergraduate Certificate in Nonprofit Management may be obtained by contacting Dr. Danielle Varda, Danielle.Varda@ucdenver.edu.

## Program Delivery

- This is an online program.


## Declaring This Certificate

- Please contact Dr. Danielle Varda, Danielle.Varda@ucdenver.edu.


## General Requirements

- Click here for information about Academic Policies


## Program Requirements

1. An undergraduate certificate in Nonprofit Management requires $\mathbf{1 8}$ credit hours of coursework.
2. All credit hours for the certificate much be completed at CU Denver. Transfer credits are not accepted.
3. A minimum grade of ' C ' must be earned in each undergraduate course applied to satisfy the certificate.

Take the following required courses:

- PUAD 3003 - Introduction to Nonprofit Organizations
- PUAD 3004 - Managing Nonprofit Organizations
- PUAD 4939 - Internship

Choose three additional courses from the following list of Nonprofit electives:

- PUAD 3005-Collaboration Across Sectors
- PUAD 4004 - Building Public and Financial Support for Nonprofit Organizations
- PUAD 4007 - Nonprofit Human Resources: Governance, Staff, and Volunteer Management
- PUAD 4020 - Social Entrepreneurship

The following activities are required in addition to the above coursework courses:

- Attend the Alliance Management Institute (Conference)
- Through SPA's partnerships with foundations, students may apply for funding to mitigate the costs of attending the conference.
- Contact Dr. Danielle Varda, Danielle.Varda@ucdenver.edu, for additional requirements for certificate completion
The successful completion of all Nonprofit Management coursework in additional to the extracurricular activities stated above are required in order to earn the Certified Nonprofit Professional designation.

Public, Non-Profit and Community Leadership Undergraduate Certificate

## Introduction

Please click here to see Political Science department information.
The Public, Non-Profit and Community Leadership Certificate program 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. Students can choose either of these two pathways to completion of the certificate.

## Program Delivery

- This is an on-campus program.


## Declaring This Certificate

- Any student wishing to declare this certificate should schedule a certificate advising appointment with either the Department Chair, Department Undergraduate Advisor, or NEW DIRECTIONS office to register their intent to pursue the Community Leadership Certificate, and to develop a curriculum plan.


## General Requirements

- Click here for information about Academic Policies.


## Certificate Requirements: On-Campus Pathway

## Public, Non-Profit and Community Leadership 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

Undergraduate Credit Requirement: the undergraduate certificate requires five "public leadership" courses (15 credits), which must include PSCI 4808 (Community Organizing and Development) and an appropriate field study (internship) course (with the default course being PSCI 4944-CU in the City).

Graduate: the graduate certificate requires four "public leadership" courses ( 12 credits), which must include PSCI 5814 (Community Development) and an appropriate field study (internship) course (with the default course being PSCI 5944-CU in the City).

Take the following required Public Leadership course:

- PSCI 4808-Strategies of Peacebuilding

Take one of the following field placement courses:

- PSCI 3914 - The Urban Citizen
- PSCI 4944/ PSCI 5944 - CU in the City
- PSCI 3939 - Internship

Take 9 semester hours of elective Public Leadership courses:

- PSCI 3035 - Political Movements: Race and Gender
- PSCI 3064 - Power and Empowerment in the United States
- PSCI 4025/ PSCI 5025 - Local Governance and Globalization
- PSCI 4074/ PSCI 5094 - Seminar: Urban Politics
- PSCI 4124 - Denver Politics
- PSCI 4206/ PSCI 5206 - Social Movements, Democracy and Global Politics
- PSCI 4207 - Theories of Social and Political Change
- PSCI 4248 - Gender, Globalization and Development
- PSCI 4265/ PSCI 5265-Social Justice And Globalization
- PSCI 4274/ PSCI 5274-Conflict Resolution and Public Consent Building
- PSCI 4324/ PSCI 5324 - Politics, Public Policy and Leadership
- PSCI 4414/ PSCI 5414 - Organizational Change Agents
- PSCI 4535 - Labor and Working Class Politics
- PSCI 4555/ PSCI 5555 - International Women's Resistance
- PSCI 4002/ PSCI 5008-Graduate Topics in Political Science
- PSCI 4840/ PSCI 5840 - Independent Study: PSCI


## Certificate Requirements: New Directions Weekend Pathway

The Center for NEW DIRECTIONS in Politics and Public Policy offers an undergraduate certificate in 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. The certificate is open to non-degree seeking students (without an undergraduate degree) as well as undergraduates. The certificate can be earned entirely through classes offered in a weekend format.

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 can also serve as a re-entry point for individuals who have been away from higher education for some time and who are fearful of returning to college to complete their BA degree program when their study skills may have faded.

Students who successfully complete the certificate program would be allowed to transfer in the credits received in the certificate program to complete their undergraduate degree at the University of Colorado Denver. Undergraduate student transfer of credits would follow completion of the formal application for admission and follow the established review for acceptance of transfer credits.

Twelve credit hours must be successfully completed with a grade of B- or better.

Take both of the following courses:

- PSCI 4324 - Politics, Public Policy and Leadership
- PSCI 4644 - Ethical Responsibilities of Leaders

Take one of the following courses:

- PSCI 4274 - Conflict Resolution and Public Consent Building
- PSCI 4414 - Organizational Change Agents

Take one of the following courses:

- PSCI 4374 - Public Priorities for the 21st Century
- PSCI 4084 - Local Government and Administration


## Risk Management and Insurance Certificate

## Introduction

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.

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.

## Program Delivery

This is an on-campus program.

## Declaring This Certificate

See the Risk Management and Insurance Certificate page for more information.

## Scientific Foundations of Technical Innovation Certificate

## Introduction

Please click here to see Physics department information.
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.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Certificate

- 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.


## General Requirements

- Click here for information about Academic Policies.


## Certificate Requirements

Take all of the following Scientific Foundations of Technical Innovation courses:

- PHYS 4850 - Physics for Design and Innovation I
- PHYS 4852 - Physics for Design and Innovation II

Take six 1 semester-hour short courses out of the list of Topics in Scientific Instrumentation; the specific sequence must be approved by the certificate advisor.

- PHYS 4400-Scientific Instrumentation


## Sociology of Health and Medicine Certificate

## Introduction

Please click here to see Sociology department information.
Enhancing the health and quality of life for individuals and communities are central goals to societies the world over. Medical sociology is a subfield devoted to the study of population health, health care systems and policy, and the social dimensions of illness and healing. Medical sociologists study the causes of health inequalities, social constructions of health and illness, origins of medical authority, doctor-patient relationships, community influences on health, and the social forces that affect policy. The Sociology Department's Sociology of Health and Medicine Certificate provides training in the core research methodologies and theories of medical sociology, examining individual experience, institutional structures, laws and policies that affect health, and broader systems of inequality that lead to unequal rates of illness and access to care. This certificate provides depth of training in these areas and is ideal for students interested in graduate-level study and social research on health and medicine as well as those interested in careers in public health, health care services, and non-profit organizations.

Upon successful completion of the certificate, students will:

- Articulate the central explanations for historical shifts in disease, including neighborhood effects and behaviors that may increase risk of disease and mortality
- Identify social factors that contribute to population health inequalities, including race, ethnicity, gender, class, immigration status, sexuality, or disability
- Understand the social influences that shape medical authority, knowledge, and patient experiences with illness and treatment
- Be able to use different methodologies to understand the social aspects of health and medicine
- Know how to conduct original research, analyze policy, and evaluate community needs for organizations devoted to improving population health


## Program Delivery

This is an on-campus program.

## Declaring This Certificate

- Eligibility: While housed in Sociology, the study of health and medical issues is in fact a multidisciplinary field that draws from diverse liberal arts fields, including Anthropology, Communications, Psychology, and History, among others. Thus, CU Denver undergraduate students in any discipline can enroll in the program.
- Application procedures: Students are encouraged to apply for the Sociology of Health and Medicine Certificate at any point in their undergraduate studies. To apply, students should print and attach a completed the Sociology of Health and Medicine Certificate Application to an unofficial transcript. These documents should be submitted to the Sociology of Health and Medicine Certificate Administrator. Once the application is approved, students will be contacted about their acceptance into the program.


## General Requirements

Click here for information about Academic Policies.

## Program Requirements

1. A minimum of 15 hours is required for this certificate.
2. To obtain the certificate, students must achieve a 3.0 GPA average in all approved families and health and medicine-related courses.
3. Credits applied to the certificate must be earned at CU Denver. (If students have completed a course required for the certificate elsewhere, they may add the needed credits in the form of additional elective credits drawn from the approved elective courses.)
4. The certificate will be awarded when the student graduates with the bachelor's degree.

Take the following required course:

- SOCY 3440-Medical Sociology

Take two of the following courses:

- SOCY 3115- Quantitative Methods \& Analysis
- SOCY 3119 - Qualitative Methods

OR
2 approved methods courses in the student's major discipline (e.g. PSYC 2090 \& PSYC 3090; PSCI 011; PHIL 3440 \& PHIL 2441; ECON 3801 \& ECON 3811; GEOG 2080 \& GEOG 4080). Questions about eligible methods course substitutions should be directed to the Sociology of Health \& Medicine Certificate Administrator.

Take two of the following approved elective courses:

- SOCY 3010 - Sociology of Human Sexuality
- SOCY 3040 - Drugs, Alcohol \& Society
- SOCY 3570 - Death \& Dying: Social \& Medical Perspectives
- SOCY 4050 - Health Disparities
- SOCY 4110 - Sociology of Health Care
- SOCY 4270 - Social Meanings of Reproduction
- SOCY 4290 - Aging, Society and Social Policy
- ANTH 3045 - Cannabis Culture
- ANTH 4010 - Medical Anthropology: Global Health
- ANTH 4290 - Anthropology and Public Health
- ANTH 4600 - Medical Anthropology
- COMM 4500 - Health Communication
- COMM 4525 - Health Communication and Community
- COMM 4550 - Rhetorics of Medicine \& Health
- COMM 4558 - Digital Health Narratives
- ECON 4660 - Health Economics.
- ETST 3002 - Ethnicity, Health and Social Justice
- GEOG 3501 - Geography of Health
- GEOG 4235 - GIS Applications in the Health Sciences
- HEHM 3100 - Introduction to Health Humanities
- HIST 3606 - Science, Technology, and Society in the Modern World
- HIST 4345 - Gender, Science, and Medicine: 1600 to the Present
- HIST 4346 - Medicine and Society: the Ancients to the Present
- PHIL 3550 - Philosophy of Death and Dying
- PHIL 4242 - Bioethics
- PSCI 4330 - U.S. Health Policy
- PSYC 3262 - Health Psychology
- PSYC 3265 - Drugs, Brain and Behavior
- PSYC 3612 - Domestic Abuse
- PSYC 3822 - Aging, Brain and Behavior
- WGST 4345 - Gender, Science, and Medicine: 1600 to the Present


## Spanish for International Business Certificate

## Introduction

Please click here to see Modern Languages department information.
The Department of Modern Languages offers an undergraduate Certificate in Spanish for International Business for students seeking an academic credential showing that they are prepared to meet the challenges of doing business in the Spanish-speaking world.

This certificate is available to all students across the University, as well as non-degree-seeking business professionals seeking to increase their skill set and value in the international market.

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.

## Program Delivery

- This is an on-campus program.


## Declaring This Certificate

- You must complete the Application for the Certificate (available on the Department webpage). This requires an unofficial transcript from CU Denver showing that you are a current undergraduate student, or a copy of former transcripts indicating an undergraduate degree has been previously granted. This must be completed prior to completing the coursework (and applying for graduation, if you are a degree-seeking student) for the certificate.
- To begin coursework, non-degree-seeking students will need to apply to the University as a non-degree seeking student. Once accepted, you will be able to enroll in all of the appropriate classes. The following is a link to that information: http://www.ucdenver.edu/admissions/non-degree/Pages/ default.aspx.


## General Requirements

- Click here for information about Academic Policies


## Program Requirements

1. A minimum grade of C or higher must be earned in each of the four courses required for the certificate.
2. A minimum GPA of 3.0 is required for all courses applying to the certificate.
3. All credits for the certificate must be earned at the University of Colorado Denver.

Take all of the following courses:

- SPAN 3700 - Spanish for International Business I
- SPAN 3710 - Spanish for International Business II

Take two of the following courses:

- SPAN 3213 - Contemporary Latin American Culture and Institutions
- SPAN 3223 - Contemporary Spanish Culture and Institutions
- SPAN 3782 - Introduction to Translation I
- SPAN 3792 - Introduction to Translation II
- Variable topics courses (e.g. SPAN 2130 or SPAN 3225) whose specific topic is applicable to Spanish for International Business can be applied to the certificate with advisor approval.

Note: SPAN 2120 (or equivalent proficiency) is a pre-requisite for all SPAN courses numbered 3xxx.

## Strategic Communication Undergraduate Certificate

## Introduction

Please click here to see Communication department information.
In keeping with worldwide transformations in journalistic practices, information technology, media production, image consumption, message distribution, and norms of citizen engagement, the Department of Communication replaced the Certificate in Public Relations with this certificate in Strategic Communication. The Strategic Communication certificate requires students to complete 18 semester hours (six courses) in a structured manner.

These degree requirements are subject to periodic revision by the academic department, and the College reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major advisor and CLAS advisor to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.


## Declaring This Certificate

- Students should apply for the undergraduate certificate in Strategic Communication after the completion of the required courses.
- To apply, students must complete the certificate application (see the Communications Department website) and return it to Dr. Hamilton Bean in his mailbox in room 3010 in 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 undergraduate certificate in Strategic Communication may be obtained from Dr. Hamilton Bean, 303-315-1909, or Hamilton.Bean@ucdenver.edu.


## General Requirements

- Click here for information about Academic Policies.


## Certificate Requirements

1. The Undergraduate Certificate in Strategic Communication requires 18 semester hours (six courses).
2. A grade of B must be earned in each course completed as part of the certificate (a grade of B- is not acceptable).
3. All of the credit hours for the certificate must be earned at the University of Colorado Denver. Take all of the following courses:

- COMM 1071 - Introduction to Journalism
- COMM 2051 - Introduction to Strategic Communication
- COMM 2071 - Media Writing Skills

Take two of the following elective courses:

- Elective 1: Take either FINE 2155 - Introduction to Digital Photography or FINE 3405 - Introduction to Digital Video or COMM 4620-Media Production.
- Elective 2: For the second elective, pick a class approved for the Certificate in Strategic Communication in consultation with a Department of Communication advisor.

Complete a semester-long capstone project conducted in conjunction with an internship appointment with a community partner (selected via consultation with the Department of Communication's Internship Director). All
capstone/internships will conclude with the production of a professional-grade portfolios and formal presentation of work in a public forum.
This requirement will be satisfied by taking:

- COMM 3939 - Internship or
- COMM 4051 - Advanced Strategic Communication


## Sustainable Urban Agriculture Undergraduate Certificate

## Introduction

Please click here to see Geography and Environmental Sciences department information.
Certificate Advisor: Amanda Weaver
Email: amanda.weaver@ucdenver.edu
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

1. Students must earn a 3.0 GPA average with no course below a " C " in any approved courses for the certificate.
2. certificate will be awarded when the student graduates with the bachelor's degree.
3. obtain the certificate, students must complete two core courses and four elective courses, totaling 18 hours.
4. core courses are offered on a yearly basis. Any alterations to the program MUST be approved by the certificate advisor.
5. 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 Program 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.
Take all of the following courses ( 6 credit hours):

- GEOG 4450 - Urban Food and Agriculture: Perspectives and Research
- GEOG 4460 - Sustainable Urban Agriculture Field Study I

Take four of the following elective courses (12 credit hours):

- GEOG 4470 - Sustainable Urban Agriculture Field Study II
- GEOG 4060 - Remote Sensing I: Introduction to Environmental Remote Sensing
- GEOG 4085 - GIS Applications for the Urban Environment
- GEOG 4265 - Sustainability in Resources Management
- GEOG 4335 - Contemporary Environmental Issues
- GEOG 4640 - Urban Geography: Denver and the U.S.
- GEOG 4680 - Urban Sustainability: Perspectives and Practice
- GEOG 3939 - Internship (a sustainable agriculture internship with a local food/urban agriculture community organization)


## Other Programs

## CU Denver Core Curriculum

The following represents the CU Denver Core curriculum as approved by the faculty on the Core Curriculum Oversight Committee (CCOC). The Core curriculum is a total of 34-38 semester hours.

## English

Students must earn a minimum grade of $C$ - or (1.7) in each course to satisfy this core curriculum requirement.
Both courses are required.

- ENGL 1020 - Core Composition I
- ENGL 2030 - Core Composition II


## Mathematics

Students must earn a minimum grade of C-(1.7) to satisfy this core curriculum requirement.
One course is required.

- 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 1120 - College Trigonometry
- MATH 1130 - Precalculus Mathematics
- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 2421 - Calculus III
- MATH 2830 - Introductory Statistics


## Arts

One course is required.

- ENGL 2156 - Introduction to Creative Writing
- FINE 1001 - Introduction to Art
- FINE 1450 - Visual Culture: Ways of Seeing
- FITV 1115 - Horror in Western Culture and Cinema
- PMUS 1001 - Music Appreciation
- THTR 1001 - Introduction to Theatre \& Arts in the Community


## Humanities

One course is required.

- CHIN 1000 - China and the Chinese
- ENGL 1601 - Telling Tales: Narrative Art in Literature and Film
- ENGL 2600 - Great Works in British and American Literature
- ETST 2155 - African American History
- FINE 2600 - Art History Survey I (beginning Spring 2017)
- FINE 2610 - Art History Survey II (beginning Spring 2017)
- FREN 1000 - Introduction to Cultures of the French- Speaking World
- FREN 2003 - French Language III
- FREN 2004 - French Language 4: Introduction to Advanced Studies
- GRMN 1000 - Germany and the Germans
- HIST 1361 - U.S. History to 1876
- HIST 1362 - U.S. History Since 1876
- HIST 1381 - Paths to Present
- HIST 1400 - Controversies in History
- LCRT 2000 - Children's \& Adolescent Literature in the 21st Century
- PHIL 1012 - Introduction to Philosophy: Relationship of the Individual to the World
- PHIL 1020 - Introduction to Ethical Reasoning
- PHIL 2441 - Logic, Language and Scientific Reasoning
- RLST 1610 - Introduction to Religious Studies
- RLST 2660 - World Religions
- SPAN 1000 - Introduction to Cultures of the Spanish Speaking World


## Behavioral Sciences

One course is required.

- ANTH 1302 - Introduction to Archaeology
- ANTH 2102 - Culture and the Human Experience
- COMM 1011 - Fundamentals of Communication
- COMM 1021 - Introduction To Media Studies
- HDFR 2080 - Sex, Human Development and Family Systems
- LING 2000 - Foundations of Linguistics
- PSYC 1000 - Introduction to Psychology I
- PSYC 1005 - Introduction to Psychology II


## Social Sciences

One course is required.

- CRJU 1000 - Criminology and Criminal Justice: An Overview
- ECON 2012 - Principles of Economics: Macroeconomics
- ECON 2022 - Principles of Economics: Microeconomics
- EDFN 1000 - Equality, Rights \& Education
- ENVS 1342 - Environment, Society and Sustainability
- ETST 2000 - Introduction to Ethnic Studies
- GEOG 1102 - World Regions Global Context
- GEOG 1602 - Urban Studies and Planning
- GEOG 2202 - Hazards to Disasters: Perception and Management
- HDFR 2200 - Love, Family and Human Development
- INTE 2500 - Digital Media and Learning
- PBHL 1001 - Race, Gender, Class, \& Health
- PBHL 2001 - Introduction To Public Health
- PSCI 1001 - Introduction to Political Science: The Quest for Freedom and Justice
- PSCI 1101 - American Political System
- PUAD 1001 - Introduction to Leadership and Public Service
- SJUS 2000 - Democratic Participation and Social Justice
- SOCY 1001 - Introduction to Sociology
- SOCY 2462 - Introduction to Social Psychology


## Biological and Physical Sciences, Mathematics

Two courses are required. One of the two required courses must have a laboratory.

## Science Courses with Labs

- ANTH 1303 - Introduction to Biological Anthropology
- BIOL 1550 - Basic Biology: Ecology and the Diversity of Life
- BIOL 1560 - Basic Biology: From Cells to Organisms
- CHEM 1474 - Core Chemistry: Chemistry for Everyday
- ENVS 1042 - Introduction to Environmental Sciences
- GEOL 1072 - Physical Geology: Surface Processes
- GEOL 1082 - Physical Geology: Internal Processes
- PHYS 1052 - General Astronomy I


## Science Courses with Co-requisite Labs

- BIOL 2051 - General Biology I and
- BIOL 2071 - General Biology Laboratory I
- BIOL 2061 - General Biology II and
- BIOL 2081 - General Biology Laboratory II
- CHEM 2031 - General Chemistry I and
- CHEM 2038 - General Chemistry Laboratory I
- CHEM 2061 - General Chemistry II and
- CHEM 2068 - General Chemistry Laboratory II
- PHYS 2010 - College Physics I and
- PHYS 2030 - College Physics Lab I
- PHYS 2311 - General Physics I: Calculus-Based and
- PHYS 2321 - General Physics Lab I
- PHYS 2020 - College Physics II and
- PHYS 2040-College Physics Lab II
- PHYS 2331 - General Physics II: Calculus-Based and
- PHYS 2341 - General Physics Lab II


## Science Courses without Labs and Mathematics

- CSCI 1350 - Introduction to Computing in Society
- GEOG 1202 - Introduction to Physical Geography
- PHYS 1100 - Foundations of Physics
- PSYC 2220 - Biological Basis of Behavior

MATH - A mathematics course taken to fulfill the Biological and Physical Sciences, Mathematics area must be from the approved Mathematics list, excluding the course taken to fulfill the Mathematics requirement.

- 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 1120 - College Trigonometry
- MATH 1130 - Precalculus Mathematics
- MATH 1401 - Calculus I
- MATH 2411 - Calculus II
- MATH 2421 - Calculus III
- MATH 2830 - Introductory Statistics


## International Perspectives

One course is required.
A preapproved study abroad experience may satisfy this requirement.

- ANTH 3000 - Globalization, Migration and Transnationalism
- CLDE 1000 - Language, Identity, \& Power: International Perspectives
- ENGL 3798 - International Perspectives in Literature and Film
- ENGR 3600 - International Dimensions of Technology and Culture
- ETST 3110 - Indigenous Studies
- ETST 3272 - Global Media
- FITV 1120 - Contemporary World Cinema
- FREN 3200 - The Francophone World in the Post-Colonial Era
- GRMN 3200 - Current German Society and Culture
- HDFR 1000 - Global Human Development \& Learning
- HDFR 3250 - Families in Global Perspectives
- HIST 3121 - The World at War, 1914-1945
- HIST 4032 - Globalization in World History Since 1945
- INTB 3000-Global Perspectives
- INTS 2020 - Foundations of International Studies
- PBHL 2052 - Global Demography and Health
- PSCI 3022 - Political Systems of the World
- PSCI 3042 - Introduction to International Relations
- RLST 3120 - Islamic Traditions
- SOCY 3720 - Global Perspectives on Social Issues
- THTR 3550 - World Theatre


## Cultural Diversity

One course is required.
Cultural diversity courses are taught at the upper division level.

- ANTH 3142 - Cultural Diversity in the Modern World
- COMM 3271 - Communication and Diversity
- ECON 3100 - Economics of Race and Gender
- EDFN 3000 - Undocumented Mexican Immigration
- EDFN 4000 - Food Justice in City \& Schools
- ENGL 3795 - Race and Ethnicity in American Literature
- ENGR 3400-Technology and Culture
- ETST 3704 - Culture, Racism and Alienation
- ETST 3794 - Ethnicity and Race in Contemporary American Culture
- HDFR 3020 - Black and Latino Children in Families and Schools
- HIST 3345 - Immigration and Ethnicity in American History
- HIST 3349 - Social Movements in 20th Century America
- MGMT 4100 - Leveraging Diversity and Inclusion in Business
- PHIL 3500 - Ideology and Culture: Racism and Sexism
- PMUS 3100 - US Music: Social \& Political Impact
- PSCI 3034 - Race, Gender, Law and Public Policy
- PSCI 3035 - Political Movements: Race and Gender
- PSYC 4485 - Psychology of Cultural Diversity
- RLST 4000 - Religion and Cultural Diversity
- SOCY 3020 - Race and Ethnicity in the U.S.
- THTR 3611 - Drama of Diversity
- WGST 3020 - Gender, Sexuality and Race in American Popular Culture


## Other Degree Requirements

In addition to the CU Denver Core Curriculum requirements listed above, students must complete a major and fulfill all additional School/College requirements. More information on these requirements can be found in the Academic Catalog in the following locations:

- Programs
- CU Denver General Graduation Requirements
- School/College Specific Graduation Requirements
- Business School
- College of Architecture and Planning
- College of Arts \& Media
- College of Engineering and Applied Science
- College of Liberal Arts and Sciences
- School of Education and Human Development
- School of Public Affairs


[^0]:    *Students must successfully pass CRJU 3100 Criminal Justice Research Methods with a C- or better before taking CRJU 3150 Statistics for Criminal Justice
    **This class also fulfills a Social Science requirement of the CU Denver core curriculum

